The Oldest Bee Journal in the English Language

The American Bee Journal

ESTABLISHED BY SAMUEL WAGNER IN 1861

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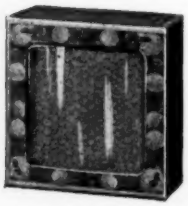
10 lb. pails, 50 in ctn., wt. 45 lbs.	5.10	5.10	5.00	5.15	5.15
5 gal. cans, 1 in ctn., wt. 6 lbs.	.45	.45	.44	.45	.46
5 gal. cans, 50 in crate, wt. 175 lbs.*	16.00	16.00	16.00	16.00	16.00
½ lb. jars, 24 in ctn., wt. 12 lbs.	.67	.67	.63	.69	.69
1 lb. jars, 24 in ctn., wt. 21 lbs.	.88	.88	.85	.90	.90
2 lb. jars, 12 in ctn., wt. 17 lbs.	.60	.60	.60	.65	.65
3 lb. jars, 12 in ctn., wt. 21 lbs.	.73	.73	.66	.73	.73

*Can only be shipped 50/c.



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AMERICAN BEE JOURNAL

Vol. LXXVI—No. 9 Hamilton, Illinois, September, 1936 Monthly, $1.00 a Year

Are We Ready for a New Bee?

By Hy. W. Sanders,
Manitoba.

THE articles by Dr. Lloyd R. Watson and P. C. Chadwick in recent issues of the American Bee Journal suggest another line of thought in relation to the problem of improving our present stock of bees by selective breeding.

For many years we have seen the statement made that improvement in the stock of bees along the lines of the achievements made in farm stock—horses, cows, pigs, sheep and poultry—is merely a matter of time and effort, and the assumption has been made that this work would be possible just as soon as we could get controlled mating of bees. The artificial insemination of queens in this country, the work of European researchers by which queens were released late in the day when normal drone flight is over and only selected drones are in the air, and attempts to isolate bees on islands or regions where the queen could find no other drone than the one intended, are all steps in relation to this objective, and from time to time we hear of various degrees of success.

No one, however, seems to have given any thought to the question of selection of breeding stock, yet it is here that (in the opinion of this contributor) the largest problem is to be found. Let us make a brief comparison of the methods used in selection of individuals for breeding purposes in the animals and birds used on the farm, and our bees.

Anyone familiar with stock judging will readily call to mind the points used, for example, in selecting breeding mothers in the dairy herd: general conformation (the wedge-shaped silhouette), size of barrel, mammary development, character of head, neck, limbs, general constitution, and so forth. In a horse it will be length of legs, size and proportion of body, neck, head, and all the rest of it. In pigs the judge must know whether the animal is to be used for the production primarily of bacon or of lard, and whether it is to be raised principally on corn or on the feeds commonly produced in regions too far north for profitable corn production. In poultry, where the objective is egg production, the birds will be selected from those having the physical characteristics which have been found to be associated with heavy laying.

In other words, in all these breeding projects we have found certain types of body development which mark out those individuals having the qualities we desire—speed and strength in the horse, milk or beef production in cattle, pork or bacon in swine, and eggs or dressed poultry in chickens.

Now with bees we want just one thing: honey. Possibly in some very few instances wax production might also be a major objective, and in this latter case there might be a possibility of selecting and breeding from individuals whose wax secreting organs were well developed. But the bee does not secrete honey, but gathers it from flowers, and who has yet formed any idea of what physical characteristics favor this work? Is it speed, or size, length of tongue, size of wings, size of honey sac, or what?

From time to time we have heard of attempts to produce bees with longer tongues to gather nectar from red clover, and here is a definite project for the breeders to start with. Others have tried to get larger bees by the use of foundation having fewer cells to the inch. In the writer's own yard we have considerable combs made from foundation that was milled by a machine from Europe having about four and one-half cells to the inch. We understand that the claim was made for this foundation that it would produce large bees. With us it has produced considerably more drones, as a large proportion of these larger-based cells are built into drone-cells on most of the combs. Consequently we have gone back to Mother Nature and all of our foundation now has the same number of cells as the bees build when left alone—five to the inch.

Another objective that might be suggested is rapid breeding. We are always talking about prolific queens, and of course a strong colony delivers the goods. What physical characteristics of the queen are associated with prolificacy (is that the right word?)? It might be size of ovaries, but we have to kill the queen to measure them. It might be size of the queen herself, and apiarists usually admire a large queen. But we know that in many of our best producers the queen is normal or even undersized.

If progress is to be made in breeding "a new bee," there must be a more scientific approach to the problem from this angle. What physical points do we need in our improved stock? What methods can be used to judge individuals after the first question has been answered? It is suggested that some research worker arrange a laboratory in which the image of a living bee can be magnified and projected onto a screen to the size of a domestic animal. Then a group could discuss points as they would over a living farm animal. Bees from colonies that make good production records could be taken and elaborate systems of measurements could be made. It might be found that length and size of wing spread, for example, was a decisive factor, or it might be found that some feature was common to the best producers that we have not yet even thought about.

It will be quite time enough to cast scorn on the "little wild honeybee" when some of these questions have been answered.

Wintering Bees in Manitoba

By Asberry Singleton,
Manitoba.

CAN you, do you, and how do you winter bees in Manitoba? These are leading questions more frequently asked than all others.

I can, I do, and after correcting a lot of mistakes that we are all prone to, and taking stock of the mistakes and turning them into profit, I winter my bees without loss, and have for several years.

Assuming that the readers have some knowledge of bees, I will give you the gleanings of my experience concisely as I can without going into minor details, believing I may be helpful to some of the young beekeepers of the North, and of interest to my friends in the South.

It is common knowledge that it is the young bees that survive the winter. In order to have our colonies well stocked with young bees our preparation for the winter should begin the last days of August by looking carefully after the brood. All queens that are not laying satisfactorily should be replaced by young queens that have been raised to meet this emergency.

I am convinced by observation that an abundance of brood stimulates the energies of the working bees into taking long flights for baby food if the occasion demands it. As the season advances, a dearth of bloom follows, their flight is prolonged, and many fall by the wayside and never return. This is no loss to the beekeeper, as it is certainly preferable having them fall by the wayside than return and go into winter quarters as charity patients to eat the winter stores for three or four months and die. Those that do get through the winter will survive but few flights in the spring and be of no benefit to the colony.

My greatest loss has been from large colonies of old bees that ate a lot of food and then dwindled away. Those that winter best are medium sized colonies of young bees.

On the 23rd of October in 1933 we had a snow fall and it turned quite cold. I took my bees to the cellar. After I had carried down the last of my standard hives I looked at my little three-frame hives which I keep for raising queens. I found that some of them had nice young queens and a handful of young bees. To each of these I gave two frames of honey leaving the middle frame empty for the bees to cluster on. I carried them to the cellar and on the 17th of April, the following spring, I brought them out. After this confinement of six months lacking six days they were in fine condition, built up rapidly, and made strong colonies.

The essential items in wintering bees in Manitoba is a good, dry, well ventilated cellar with a temperature from 36 to 40 degrees, medium sized colonies of young bees, plenty of food and a late fall flight.

In preparing my bees for the winter, I begin when taking off my last supers in the fall, selecting nice full frames of pure honey which I store in the honey house to replace in the final feeding those that do not meet my approval. When the frost touches the flowers and the honeyflow is over I take the supers of these selected frames to the bee yard and while going through each individual hive (all of my hives are standard 10-frames) I lift the three outside frames from each side of the hive and all that are but partially filled with good honey or are defective, are replaced with frames that I have selected for the purpose. This gives each hive six full frames of honey and with the honey in the four center frames which I take no account of, has never failed

These two pictures are of either side of the same bee cellar as described by Mr. Singleton. 183 colonies wintered here in 1935.

to furnish them with plenty of food for the winter.

Another little detail I consider very important, is to raise each hive body from the bottom board. I do this with a small clinch bar by prying up the body and putting little blocks of wood ½ inch thick between the bottom and the body. This gives them much better ventilation.

And this is the simple method of wintering bees in Manitoba without loss.

—ABJ—

Iowa State Apiarist Report

Here is a copy of the Iowa State Apiarist report for the year 1935 and a report of the Convention for that year.

As usual, the report includes, in addition to the report of the State Apiarist, a number of interesting and valuable papers on different subjects. This year they include a report of the disease resistant experiment by the Iowa Agricultural Experiment Station under the direction of Dr. Park; a paper on the experience with foulbrood by John Bixler, the originator of the resistant idea; disease prevention by Howard Shipton, State Inspector; a discussion of the experiment by Prof. Paddock.

"The Relation Between the Rate of Granulation of Clover Honey and Its Water Content," by Ellis I. Fulmer, Dr. O. W. Park and J. C. Williams; a review of the question "Do Bees Transport Eggs," by Geo. Polhemus; "Spraying Bees in the Orchard," by Bob Clark of the Iowa Horticultural Society; "Orchard Pollination," by O. O. Smith; "Migratory Beekeeping," E. W. Stewart, Fairfax, Missouri; "Observations on National Honey Week," by Dr. Nelson; "Using Honey in the Home," by Mrs. Paddock; "Radio Discussion," by F. B. Paddock; a paper on "Needed Research in Apiculture," by Ralph L. Parker of Kansas. Copies of the State Apiarist report may be obtained by writing to Prof. F. B. Paddock, Ames, Iowa.

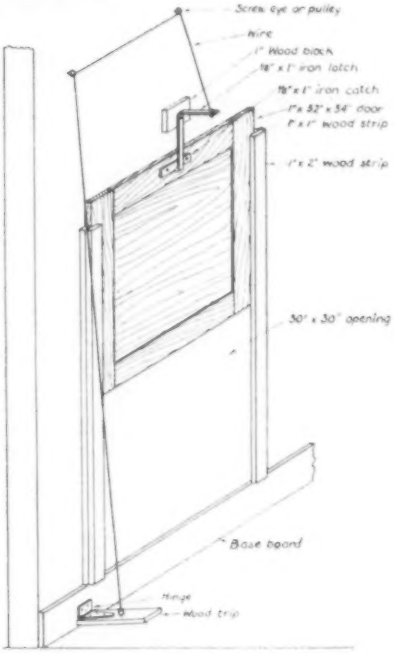
—ABJ—

In Time of Stress

The enemies are like to Bees,
Feare not their numbers nor their rage,
For they are Bees, they are not Lions,
They Buzze, they make a valiant noise,
Though they have stings they cannot do
That they would clearly like to do.
Their power is lesse than all their spight,
Lesse than all their busie malice.
—Adapted from Purchas. (W. H. Hull, Virginia.)

A Handy Foot-Trip Door

By Frank F. Johnson, Wisconsin.



Handy foot-trip door.
(Redrawn by Roy Grout)

In erecting a honey house, I wanted something to prevent the bees following me in every time I opened the door while carrying in supers, and at the same time to be operated by the foot when hands were busily engaged. While this plan does not entirely eliminate the bees, their reduction is quite noticeable.

I cut an opening in the wall, which ever side of the building is best suited according to the location of the extractor, capping tank, etc. The opening should be large enough with space allowed at sides, top and bottom for ease in handling supers; about 30 inches square would be about right.

The door covering the opening should be made from one inch stock and about two inches wider and four inches longer than the opening. Nail a 1"x1" strip to wall on each side of opening with just enough play so that door will slide easily between them; the strips should be the length from the top of closed door to base. Then nail two 1"x2" strips the same length to the 1"x1" strips overlapping the door, so as to act as a slide for a drawer.

Fasten a strip of iron or wood on the face of the door near the top edge to act as a catch for the latch. Fasten a block of wood the same thickness as the door, onto the wall about two inches above the door when in its closed position. A piece of strap iron one-eighth inch or more in thickness and can be one-half to one inch in width, about seven inches long, formed to an L shape with one-half inch of verticle arm bent horizontal in the opposite direction to the lower arm, this to act as latch to engage in catch on door. This part is fastened to block above door by means of two small screw eyes and a nail, or it can be fastened with a crate staple.

About two inches above the latch, fasten to wall a screw eye or small pulley, also one at the same level but at the left side in line with the 1"x2" strip. A trip can be made of a piece of wood twelve inches long, fastened to left base with a hinge. A flexible wire is run from trip thru pulleys to the latch and adjusted so door will drop when trip is compressed.

On the inside a suitable shelf or bench is erected along the wall so the supers will push each preceding super along the bench. Several supers can thus be pushed along before one need go inside to stack them up.

—ABJ—

Johnson Dies At Blue Mounds

E. M. Johnson, 92, one of the best known Wisconsin beekeepers, died July 12 at Blue Mounds, a victim of heat. He had been a beekeeper since 1855, when, at the age of 11, he captured a stray swarm which a neighbor helped him to hive.

Mr. Johnson came to Blue Mounds in 1891 from Ohio, bringing his ten or more colonies with him, increasing during the following years until finally beekeeping, gardening and fruit growing became his major business. About 15 years after moving to Wisconsin he had approximately 400 colonies, both in Wisconsin and in Michigan.

Mr. Johnson was born in Ohio about 30 miles from Cleveland and is survived by a daughter Anna.

—Wisconsin Trade News Bureau.

—ABJ—

Shipment of Queens Abroad

According to postal instructions we have just received, it appears that on shipments of queens and other bee packages abroad, it is obligatory to place instructions on the package shipped as to the alternative disposition to be made of the parcel in the event of non delivery as originally addressed.

This means that some second address as to disposition or return to writer should be plainly placed on package.

Co-operative Marketing

By Wm. March,
Ohio.

I have known and worked with beekeepers for a long time and was finally forced into honey production, so I am a beekeeper myself. I do not like the way the business is conducted. It seems to me that beekeepers do not know how to carry on their work in a businesslike way.

For instance, a large producer goes into increased production and pays no attention to marketing. He has to sell for what he can get, often underselling others. Smaller producers follow suit. They get more bees, produce more honey to sell at any price.

I have only 200 colonies so I am a small beekeeper, but, being located in a large city, I am better situated for retailing than I am for production. I can sell more than I produce. I have difficulty in getting honey, however, at right prices and getting enough of it to have a stock, yet I meet many beekeepers who claim they cannot dispose of their honey.

After several years of thinking about this problem, I have come to the conclusion that co-operative marketing is a possible answer and that it would be a great advantage to both the producer and the retailer. It seems to me that unless we do organize to produce and market our product in a high-class, business-like way as other products are handled, the efforts of American Honey Institute and individuals will be in vain.

Much more attention has been devoted to producing than to retailing so honey is produced much more efficiently and progressively than it is being sold. Methods of marketing honey are antiquated and carried on in an unattractive way.

Here and there over the country are modern plants and efforts are being made to market honey successfully but we do need a co-operative agency in every large community where all producers may bring their honey to be handled, bottled and sold in an attractive fashion.

It can be done and would have been done before if it were not for the fact that producing honey and selling it are two different jobs and most beekeepers devote all their attention to production and neglect selling. Perhaps they do not have time for both but since both are necessary, we should work together for mutual benefit.

A modern bottling and distributing center in each large community costs money but if every producer would back his own distribution center, bring his honey there and not try to undersell at every opportunity, the step can be accomplished and without much outlay.

In that way the producer would get a uniform price, always have an outlet for all he can produce and all the honey would be sold in standard containers. Then there would be no need to invade each other's territory, ship honey long distances or perhaps hold it for higher prices which do not come.

Think it over, beekeepers, honey could be sold in a better way, couldn't it, under such a plan? We ought to organize ourselves and bring our marketing up-to-date.

—ABJ—

Spores of Bacillus Larvae in Honey

A bulletin with a rather long title has just come from the pen of Dr. A. P. Sturtevant and reprinted from Journal of Agricultural Research, Vol. 52, No. 9, May 1, 1936.

Quantitative Demonstration of the Presence of Spores of Bacillus Larvae in Honey Contaminated by Contact with American Foulbrood.

It is a paper covering the whole subject and giving the results of examinations of 212 samples of commercial honey from 28 states and 2 territories, showing that the spores of Bacillus larvae were found in 8 per cent of the samples, but in relatively small numbers. These were fed to healthy colonies of bees and only one contained sufficient infection to produce disease, indicating that the requirement of certification of honey is not a justifiable measure in the control of American foulbrood under present conditions in this country.

In previous work, it has been shown that, during a five year period, feeding 19 colonies with a dosage containing less than approximately 50,000,000 spores of Bacillus larvae in one liter of sugar syrup, or 50,000 spores per cubic centimeter, no cases of foulbrood developed. In another lot of 11 colonies fed 50,000 spores per cubic centimeter, 2 developed disease and 9 remained healthy; of 6 colonies fed 75,000, 3 developed positive disease and 1 probable, and 2 remained healthy; of 6 colonies fed 100,000 per cubic centimeter, 2 were positive, 1 probable and 3 healthy; of 4 colonies fed 200,000 spores per cubic centimeter, 3 were positive and 1 probable.

So it is assumed that 50,000 spores of Bacillus larvae per cubic centimeter of syrup should be considered the critical number or minimum infectious dose of spores that will produce disease, when 1 liter is used as the unit volume to be fed.

The bulletin is statistical. Those interested should write United States Government Printing Office, Washington, D. C.

—ABJ—

Our Cover Picture

The cover for the August number showing the cows in sweet clover, should have been noted in that issue. It is a beautiful farm scene furnished us by Gustav Stawitzki, Manitoba, taken at Glencarnock Farm, home of the late J. D. McGregor, Lieutenant Governor of Manitoba. The Hon. McGregor was a breeder of Angus cattle and beekeeper of prominence.

Mr. Stawitzki, formerly in charge of the apiary for Mr. McGregor, has, since the death of the Governor, established for himself 400 colonies at Neepawa that are in hives even larger than the Dadant, with a large upper entrance in the hive body, using Dadant size extracting supers, ten frames in each hive, boasts of exceptional wintering success in very severe long winters.

He gives the average winter consumption of 6¾ pounds during the winter of 1936 from October until the 12th of April, with 8 and 9 combs of brood on May 20. The bees were stored in a bee cellar in a hillside.

September Cover

The September cover is from a picture furnished us by A. C. Lundin at Tampa, Florida, one of Florida's genial inspectors. It was taken in February of this year and is a fine subject we think.

Bees on orange bloom are unusual to northern breeders and a bit unseasonal too, but nevertheless it is such a good picture we used it.

—ABJ—

Arbide From Mexico To San Antonio

We are pleased to announce that Mr. J. T. Arbide, newly appointed apicultural expert of the Department of Agriculture in Mexico, writes that he will attend the Conference of Beekeepers at San Antonio to represent Mexican apicultural interests.

Arlene Weidenkopf,
American Honey Producers' League.

—ABJ—

Yakima Yield High

Natural conditions for honey production in the Yakima Valley this year have brought about the best flow in several seasons beekeepers report. The bees have done well everywhere except in districts where spray poisoning occurs. Virtually the entire crop of 1935 has been sold.

I. L. Neill,
Washington.

GUEST EDITORIAL

In the Interest of . . American Honey Institute

LEWIS WHITE

Our Advertising Medium

By Lewis White,
Oregon.

HONEY producers should consider the American Honey Institute as their advertising medium. Its work is along the research and educational line, which gives it **much more, and more permanent value than ordinary advertising.**

A large Pacific Coast milling company spends ½ of 1% to 1% of retail price for advertising. This would figure about $1 per ton of honey produced. If honey producers would look at it from that angle and spend that much for advertising, either to the Institute or directly, the demand would soon increase, and then the price, for price is the result of supply and demand.

The Honey Harvest Festival idea announced for October 25 to 31 should create renewed interest as the "Week" idea has become somewhat overdone in the fall. To easily make it a success in your community, **join the Institute,** get all the literature it offers that you need, whether it is for demonstrations, local newspapers, school Home Economics teachers, or commercial Home Economists and deliver it to them personally, offering to get any further information they may need. That will make a permanent contact of inestimable value.

The object of both ideas is to create greater consumer interest and increased sales. However, it is my opinion that much greater benefit and sales volume will be derived from the same amount of "sales effort" by observing **"Honey Week" during early spring when consumer demand is low, to make "fall" honey consumers "all-year" consumers as they are 75% won now.** Their total value to "sell" those who do not use honey is much greater than that of the producers.

Several years ago a member introduced the Institute literature to the Home Economics group in Portland and as a result Portland and Oregon consume a very large amount of honey, consuming not only the Oregon crop but many, many carloads from adjoining states. And when it was announced last fall that Mrs. Jensen was to be with us, the state association committee was so besieged with requests and invitations by radio stations, newspapers, and Home Economists that it was necessary to schedule nearly all her day in Portland for courtesy appointments. Her time could have been booked solid for a full week **without any solicitation.** Radio stations gave broadcasts, newspapers gave pages of honey stories and recipes, and stores made large window displays. Very little of this would have been possible **without the Institute** and **the previous personal contact.**

I note that a monthly leaflet published by a large national refrigerator company contains a vegetable cookie recipe calling for 12 ounces of honey. This goes to teachers and food specialists as well as consumers. Also a recent paper by a **prominent Apothecarist** states that Mel-ixirs, or elixirs in which honey is used in place of various syrups, have a distinct advantage over other elixirs, whether considered from the therapeutic, the pharmaceutic, or the epicurean standpoint. Another **wonderful outlet for honey that is increasing.**

A Los Angeles school class upon coming to the subject of bees, contacted the Institute and as a result made and presented to their mothers a Mother's Day folder containing honey recipes. Another example of lasting benefit to the credit of the Institute.

Across the continent in Rhode Island jars of honey are on the market on which the jar-cap invites the consumer to write the Institute for recipes. A unique method of securing consumer good-will.

Most producers would be amazed if they knew how much interest develops and how many Home Economists request literature when they learn what the Institute has to offer. One writes, "I myself, did not know there were so many good uses for honey. It is a shame that so few people know how to use honey as a food."

Our Educational Committee chairman recently contacted the state 4-H Club leaders regarding the Institute work and from the interest developed Oregon will have some entries in the Third National Honey Cookery Contest.

Additional Prizes for Oregon Entrants

To encourage Oregon entrants I will contribute additional special prices of $2 to highest Oregon prize winner in each class and $1 each to all other Oregon entrants.

Write to the Institute for information, entry blanks, and recipes that may help make an entry a prize winner.

The new edition of "100 Honey Helpings" is ready. Few realize what a wonderful booklet this is and the facts it contains. I suggest that all interested send immediately for their needs before the supply is again exhausted. A copy for Xmas will make any of your customers boosters for honey and for you. Also see that your local Home Economics teachers and editors have a copy. The dividends will be large.

Other new Institute releases now available are New Ways to Use Comb Honey and Canning Leaflet (revised edition). All Institute releases are available to members at cost. Sample copies free upon request.

In conclusion I wish to repeat that we **must** support the Institute for it takes considerable time to build up such valuable work, work that increases rapidly if continued. Regardless of whether your market is locally or across the continent, **increased demand in any market benefits all.**

Notes on Mr. Lewis M. White of Portland, Oregon.

Mr. White started commercially in 1924 and gradually built up to 700 colonies (he makes three moves per year). He is operating about 800 colonies at the present time. His largest production was 50 tons and in addition he buys and packs annually, about 40 tons from neighbor beekeepers. Now and then he buys other crops, the main object being to take it up at a time when the market is being flooded and release same when the market is short, thus stabilizing prices.

EDITORIAL

International Horticultural Exposition

Considering the eminent position long occupied by the International Livestock Exposition held each year at Union Stock Yards, Chicago, one is inclined to grow enthusiastic regarding the new Horticultural Exposition. The same facilities are to be used by the horticultural show and there is every reason to expect that this show will soon attract world-wide interest.

Our readers should bear in mind the dates of the first of the annual horticultural shows which will be held in the ampitheater at the stock yards from September 12 to 20. The time is very short in which to prepare suitable exhibits but we urge those who are in position to do so to write at once to the International Horticultural Exposition, Union Stock Yards, Chicago, for information regarding entries of apiary products. It is highly desirable that honey make a suitable showing at the first show.

There is every reason to believe that the show will grow in extent and importance from year to year. It should offer a very favorable opportunity to present the attractions of honey and wax to the public. If the beekeepers prepare exhibits suitable to the occasion they are likely to be included as a permanent part of the exposition.

To win at the International Livestock Show is the ambition of every livestock breeder and we may look forward to equal rivalry at the horticultural show.

This exposition has only recently been organized and the first show is being prepared on short notice with little time for advance publicity or preparation. Only recently have we been advised that it is the plan to include apiary products. It is up to the beekeepers to do their best to make this first International Show a real success.

—ABJ—

Containers for Extracted Honey

Mention has been made in previous issues of this magazine of the attempt to eliminate numerous unnecessary sizes of containers often used for extracted honey. If the trade can be supplied with honey in a few well selected sizes it should do much to improve marketing conditions and reduce the cost of bottling. If the packer must supply a large variety of packages it increases the inventories and adds to the difficulties of getting the product to the consumer.

It was on February 27, 1933, that a committee representing the honey producers, the packers and the manufacturers of containers first met to consider the question of simplified practice. In March of this year the standing committee proposed that the sale of honey as far as possible be limited to the following sizes: Glass containers of the capacity of 5, 8, 16, 24, 32 and 48 ounces and tin containers of the capacity of 2½, 5, 10 and 60 pounds.

There is no law to compel any honey producer or packer to conform to this standard but it is hoped that all will do so in the interest of improving conditions in the markets.

—ABJ—

The Winter Ahead

Last year's disastrous winter losses should remind us that it is not too early to begin our winter preparations. We cannot avoid low temperatures if cold weather comes but we can do much to put the bees in shape to stand the test. Colonies given young queens now are likely to have clusters of young bees, which withstand severe weather much better than old bees worn by gathering the harvest. Any feeding which may be necessary should be done early to enable the bees to fully prepare the stores before cold weather. When we have clusters of young bees with young queens and ample stores of good quality we are well prepared for winter. It only remains to provide suitable protection to complete the job.

—ABJ—

Trend of Research

Of late there is a decided tendency among research men to look for a solution of many agricultural problems along new lines. Entomologists are especially anxious to find some more effective method of insect control than the use of poisons. Poison is expensive in its application, the effects are temporary and too often useful wild life is also destroyed.

The search for bees which are disease resistant brings us into contact with workers in other fields who are making a similar search. Entomologists tell us that our native grape vines are much more resistant to the Phylloxera than European varieties. They also tell us that the Northern Spy apple is much less subject to attacks of woolly aphis than other varieties and an effort has been made to make use of this character by grafting less resistant varieties upon the roots of the Spy. San Jose scale has proved to be extremely destructive in uncared for orchards yet we are told that the Kieffer pear is but little affected by its presence.

Such cases encourage the research workers in the hope that resistant varieties can be found to solve the problem of both disease and insect injury.

—ABJ—

Sweet Clover Saves the Day

One lesson from the drought which seems to be receiving attention is the value of sweet clover in dry areas. In hundreds of cases the farmer who had a field of sweet clover had pasture for his livestock while his neighbor who depended upon blue grass had none. With this demonstration repeated so many times in recent years it is surprising that more sweet clover is not grown. The acreage, however, is increasing and more and more dependence is placed on sweet clover by mid-western farmers. Without sweet clover there would be but little honey for market in the area between the Great Lakes and the Rocky Mountains. Bees as well as cows depend upon it.

—ABJ—

Minerals and Health

Scientific investigation is bringing many new facts to light and opening many new lines of human activity. A recent discovery of far reaching importance is that vegetables lack important minerals when grown on land which has lost some of its original ingredients through careless management. It is said that ill health may be caused through a food supply thus lacking in essential minerals.

Poor farming thus becomes a menace in a hitherto unsuspected way. If the soil on which crops are grown has become depleted those who depend upon its products for food may have their health endangered.

An interesting question at once arises as to how far the same may hold true of honey. Honey is known to contain an unusual number of minerals and for this reason is superior to other sweets in common use. It will be interesting to determine whether there is an important variation in the mineral content of honey gathered from plants growing on different soils.

We Americans are very careless and improvident people. Here in the Middle West where the land has been settled for less than a century there are many neighborhoods where the soil is all but useless because of erosion and bad farming. A friend of the writer who came from

Europe was raised on a farm which had been cultivated for 1200 years and still produced good crops. Every care was given to improve its condition and to maintain its fertility.

It certainly is a national disgrace that with such a rich heritage we Americans have squandered our soil resources to such an extent in so short a time. Perhaps the discovery that the decline in soil fertility may cause ill health to the public which depends upon its food supply may bring about the adoption of a public policy which will compel better soil maintenance.

Certainly the ownership of land does not justify its use in such a manner as to imperil future generations.

ABJ

Some Beekeeping History

The first national beekeepers' organization in this country was formed at Cleveland, Ohio, March 15, 1860. Although the name has been changed from time to time and nobody knows how many constitutions have been adopted, the Honey Producers' League appears to be the natural successor of this first society.

Our national association is therefore 76 years old and has passed its diamond anniversary. With so many years of activity there is much of interesting history in the background of this organization. Most of the men who have been prominent in the beekeeping industry have been associated with the society at one time or another.

Activity was suspended by the Civil War but since the reorganization in 1870 a convention has been held every year without a break. The San Antonio meeting will therefore be about the 68th annual meeting to be held without interruption.

Michigan beemen held a meeting at Jackson in 1859 and it would be interesting to know whether there is a complete record of the activity of the beekeepers of that state since that time.

Illinois beekeepers organized at Springfield with fifteen charter members in February, 1891. An annual report has been published every year since that time so that Illinois beekeepers have a rather complete history of their association. There were more than one hundred members at the close of the first year.

Iowa has one of the younger associations. 1936 is the 25th anniversary of the founding of the society. Proceedings have been included in the annual report of the state apiarist since the second convention so that this history is also nearly complete.

These observations are merely for the purpose of furnishing a background for the suggestion that each beekeeping organization prepare as complete a history of its activities as is now possible for deposit in the beekeeping libraries, at Wisconsin and Cornell Universities. Information not recorded promptly is very difficult to supply in later years.

ABJ

Problems of Locality

In the bee magazines of bygone days there is much space devoted to the discussion of bee behavior. In numerous cases of disagreement among the writers the differences are credited to "locality."

Of late we hear but little of the influence of locality on bee behavior, but there is much said about the development of local conditions as they may affect the beekeeper. Very frequently of late we have had occasion to mention the disastrous losses of bees as a result of spray poisoning. In dozens of cases the beemen have had to seek new locations to escape the arsenicals spread by the orchardist. Another kind of poisoning is suggested now and again when the bees appear to be killed by the nectar which they gather from such sources as California buckeye, mountain laurel or yellow jessamine. Numerous cases of mysterious losses of bees in the West where no spraying was carried on have been laid to poisoning with little to prove the source.

The facts are just coming to light which indicate that the presence of selenium in the soil may account for such losses. It appears possible that the nectar from any plant on such soils may at times be poisonous to the bees and thus a new and serious locality problem presents itself.

Changing conditions and changing bee pastures are compelling many beekeepers to consider moving their bees to new locations.

ABJ

Encourage the Beginner

Not long since the writer had a brief visit with a beekeeper who has better equipment than most of his neighbors, gives his bees better attention and gets larger crops than others in his locality. He complained of the demoralized condition of the markets in the neighborhood and expressed the opinion that conditions would be better if there were more beekeepers. He appreciated the fact that a business of so little importance as to fail to attract the interest of numerous followers has a hard time maintaining itself on a prosperous level.

Usually we find the most prosperous followers of any farm specialty in regions where many are interested in the same crop. Beekeeping is suffering for lack of the enthusiasm and leadership which large numbers of beginners always provide. Talk of overproduction of honey is all foolishness. There is need of far greater production than is now possible in order to develop the best markets.

ABJ

Poor Drones

In our March issue Allen Latham blames many of the cases of failing queens on the fact that matings were imperfect. Those who have observed drones carefully in early spring will be prepared to agree with Latham on this point. Certainly it is difficult to secure good matings in chilly or inclement weather.

This brings up the question of the quality of drones and the inability of the beekeeper to determine whether any individual is worthy of propagation. Livestock breeders secure good results because they are able to select desirable sires and control their mating. Perhaps too little attention has been given to the improvement of the male parent in our honeybees. It would seem that colonies of especially good quality might well be given several frames of drone foundation and encouraged to rear the greatest possible number of drones, while less desirable colonies should be restricted as far as possible.

ABJ

Diversification or Specialization

Most of our readers are interested in bees along with some other pursuit. With many beekeeping offers an important source of income although not the only one. Some are interested only in finding a pleasant outdoor occupation. Most of them regard the financial return as important, however.

The question is raised at frequent intervals as to whether beekeeping is sufficiently dependable to justify its followers to make it an exclusive business. This is a difficult question to answer unless one is familiar with the individual and his locality. So much depends upon the locality and upon the beekeeper. Where one man will make an outstanding success as a specialist another will do better to divide his interests.

There is still much to be said for the old time diversified interest represented by "the cow, the pig and the hen" along with the bees. In a favorable beekeeping locality, however, an efficient beeman may expect to make larger returns by following beekeeping to the exclusion of other interests.

A young man who left city employment only a few years ago, with a small capital to begin with, recently told this writer that he had not felt the depression. He established himself in a good sweet clover location and expanded his outfit as fast as the returns from the sale of his honey would permit. After having reached the desired number of colonies he has turned his attention to securing the other things which his family desires. With the proceeds of last year's crop he purchased a very pretty country home. It is hardly to be expected that he could have done as well during the recent trying years had he divided his attention between several lines of endeavor.

On the other hand the one with other interests is safeguarded against crop failures and other vicissitudes which continue to arise. Which is the better plan each must decide for himself.

A Wax Capping Press

By Alvin W. Knisley,
Ontario.

WITH these pictures and the little description I am able to give, I believe it will be easy to understand the construction and use of my wax capping press. Picture No. 1 shows a front view of the press. There is a ⅞ inch bottom board hollowed ½ inch so honey will run to the center and thence to the outlet with a galvanized sheet iron lining loosely set in. This lining is 7 inches high on the sides to catch the drip from the uncapped combs. No. 2 shows one press under pressure, the other ready for the cappings to drop in. Note the press hoops which have a staple in each hoop with a nail to keep them closed. It also shows a crossbar with a screw to set the frame on while uncapping. It can be moved where most convenient.

No. 3 shows the press open with a slat one inch wide, ⅛ of an inch apart, also the lower side of the press bottom with narrow slats ½ inch wide and ½ inch apart. Bottom slats 1 inch wide ⅛ inch apart, also bottom part of top press slats 1 inch wide ⅛ inch apart.

The upper part of the top press strips are 1½ inches wide ¼ inch apart made of hardwood, also three 1½x1 inch oak with three spring steel plates and one across the top with a large punch mark in the center for the screw to set in. The press screw was made 8 threads to the inch.

No. 4 shows the back of the press stand bottom, having 1 inch slope to the front. The back end of the galvanized pan is 1 inch high, the press is removed from the back after the honey is pressed out.

To take the wax out, draw out the nails to open the press. The press ¾ full with well capped cappings gives best results. Turn every few minutes for half an hour and you will have a cake of wax as hard as a board with very little honey.

The press is 2 feet 8 inches high from the floor to the top of the resting board. The top resting strips project to the front, 10 inches to hang empty combs on until it can be trimmed or sorted.

The bottom board is 3 feet 9 inches long, the press racks 14 inches across, 16 inches deep. The full width across the top 19½ inches. The press is made for Richardson size frames. For Langstroth frames, it must be wider.

—ABJ—

Fourth Year Report of Moth Balls

This is an added item to the article on page 451. A letter from W. H. Lewis says:

"This is the fourth year I have used moth balls to keep stored supers free from wax moths. In the article on page 451 I stated I used two moth balls to each super, but hinted that one would be enough.

"This season I used one to each super and on examination this month (August) I find that one moth ball is not enough. The combs on each side of the hives have a few wax worms, none in the center. Moth balls are only a repellant, therefore, and must be used in sufficient quantity to be effective. They must be carefully put in so as to spread them over each stack.

"If this work is carefully done and sufficient moth balls are used, it will effectually repel the moth at less cost than by any other method."

We are trying the moth balls, too. First using a killing agent, in our case paradichlorobenzene, and then leaving enough of the moth balls in the stack of supers to last indefinitely.

—ABJ—

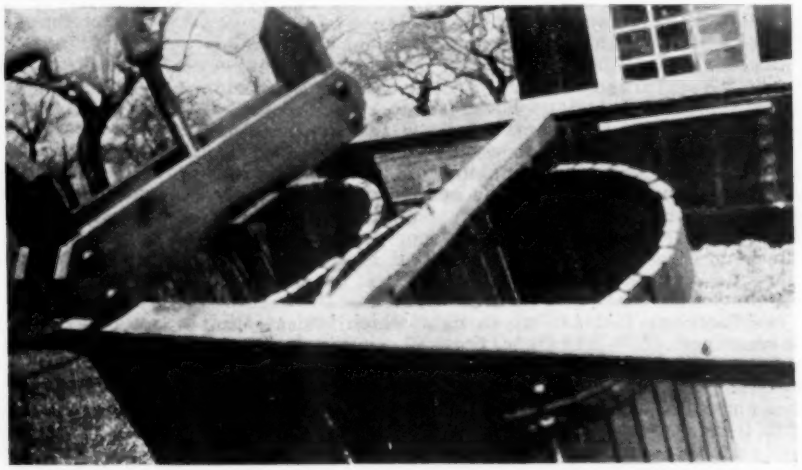
Washington Beekeepers Name Seven Cents

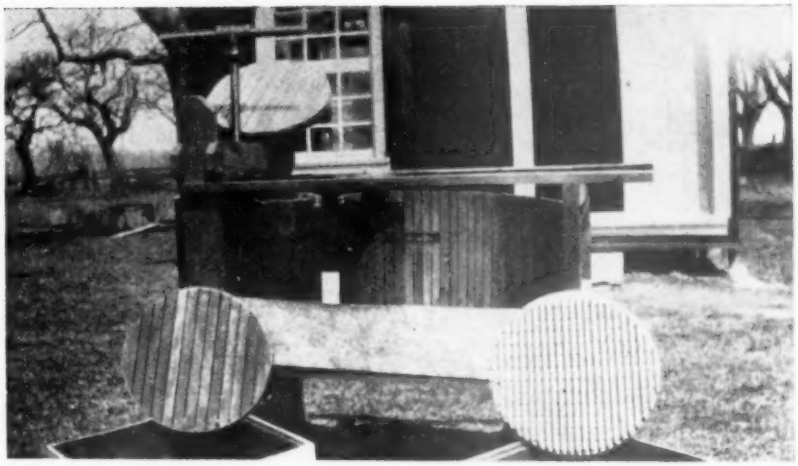
At a meeting at Lake Tipsoe near Mt. Rainier, beekeepers of eastern and western Washington in a recent picnic with more than forty in attendance, named a price of seven cents as the concensus of opinion concerning the minimum wholesale price.

The picnic itself was so successful that it was decided to make it an annual event to be held the first Saturday in August each year.

I. L. Neill,
Washington.

No. 1, at left, front view, showing bottom board with lining and vent at end. No. 2, below, one press under pressure; the other ready for uncapping.





No. 3, top view, press open with bottom and top set out to show construction. No. 4, at right, back end view of the press.

—ABJ—

American Honey Institute NEWS NOTES

Honey Harvest Festival

THE Honey Harvest Festival is Institute's new plan for the fall period, the date being set for the week of October 25 to October 31. This is not to be like National Honey Week, and plans for it should be in the nature of a celebration rather than the more conventional advertising program which features National Honey Week. This offers an opportunity for everyone in a community to have a part in a play-time which should keep us on our toes and be made a really worth while cooperative undertaking.

Programs may be obtained free from American Honey Institute, Madison, Wisconsin.

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Third National Cookery Contest

The third National Cookery Contest will be held at the National Conference, San Antonio, November 23 to 25. Headquarters, Crockett Hotel. Entries must reach San Antonio by November 20. Address entries to American Honey Institute, San Antonio, Texas, c/o Crockett Hotel.

The rules and list of prizes will be mailed to anyone by the Institute on receipt of a postal card requesting them. There will be an increase in cash and other prizes. Remember, this contest identifies you with a national educational program. In 1934 Georgia produced the largest number of entries and the greatest number of prize-winning recipes. In 1935 Wisconsin held these honors. Increase the number of entries from your state and hold the record for 1936.

— o —

New Recipe Leaflets

"100 Honey Helpings" — just off the press! Revised edition, includes latest research reference to alkalinity of honey and relative moisture content of honey and other syrups. Two color cover, recipe text illustrated with pictures of honey foods.

These may be distributed to your customers or redeemed for a given number of labels from your honey containers. They are priced at 10 cents each from American Honey Institute.

We also have "Unusual Uses for Comb Honey," a new publication in an attempt to help comb honey producers, a 6-page colored leaflet, folder type, giving original uses for comb honey. We will send a copy with prices on request. Also, "Use Honey in Canning," a recipe leaflet for fruit sauces, jellies, jams and pickles. Sample copy free on request.

New Members

We would like our older members to get new members at summer meetings. Watch for an announcement on Special Club Offers of Institute Service for one year and 1 Dripcut Dispenser Top, an offer which will be in effect for a limited period only. The very best way to help with your own Institute is to be on the Honor Roll and stay there every year.

— o —

Suggestions for Honey Harvest Festival

This is taken from the leaflet "Honey Harvest Festival" furnished by the Institute which suggests festivals, exhibits, parades, children's day, contest day, a stunt day, a homemaker's day, a merchant's day with various ideas for you, and on the back page a series of festival leaflets covering every phase of the suggestion just outlined.

—ABJ—

Western British Columbia Crop Short

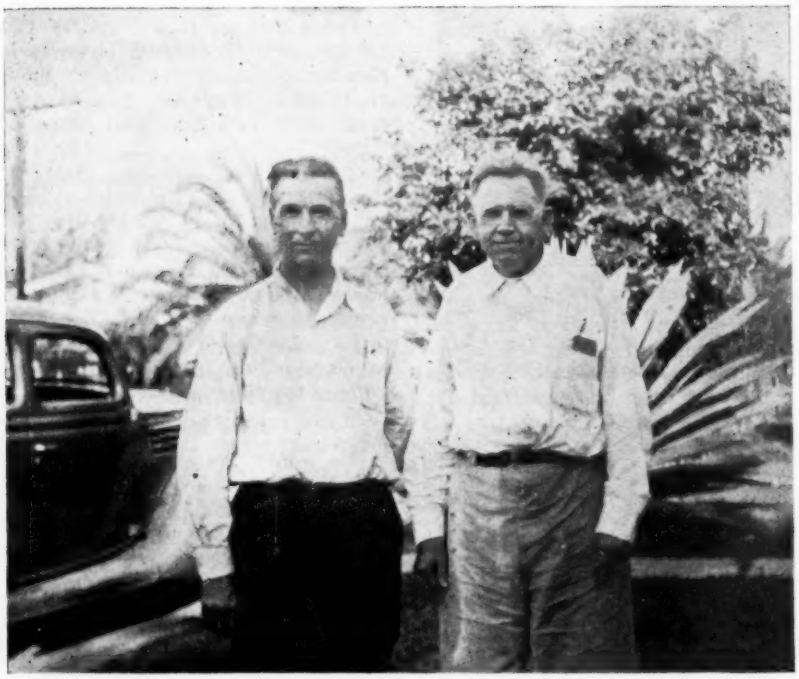
1936 will be marked in the coast region of British Columbia as the worst in history of honey production. Frequent and long spring rains thru June and July kept the bees from gathering. The days of flight were not enough to keep colonies going between rains. Many colonies failed to maintain their stores. When weather finally settled, there was little comb left.

In some districts fireweed and late clover will supply enough for winter and a few extra pounds of surplus, but generally, Lower Fraser Valley beekeepers will write down the season of 1936 as a failure.

In the interior, however, the Nicola, Okanagan and Thompson Valleys, good crops are reported which will help the average.

F. H. Fullerton,
British Columbia.

Park and Parks



SO much confusion has resulted from the similarity of names of Dr. O. W. Park of Iowa State College of Agriculture and H. B. Parks, Apiculturist of the Texas Experiment Station, that we are pleased to present a picture of the two men together. They can hardly be mistaken for each other in appearance. It is only the names which confuse. The fact that both are engaged in experimental work in the beekeeping field is responsible for the difficulty.

H. B. Parks, the Texas man who wears glasses is in charge of the research laboratory near San Antonio. He has specialized in the study of the honey plants of the Southwest, while his assistant, A. L. Alex, devotes his attention to queen-rearing.

Dr. O. W. Park is engaged in beekeeping research at the Iowa Agricultural Experiment Station. He has specialized in the study of the behavior of bees in the gathering and ripening of nectar. Just now he is occupied with the effort to find disease resistant bees.

—ABJ—

Miss Davidson's Recipe

Honey Fudge

1 square bitter chocolate
⅛ tsp. salt
¼ cup honey
1 cup nuts
2 cups sugar
1 cup evaporated milk
1 tsp. vanilla

Melt chocolate over hot water. Add sugar, salt and milk and boil five minutes. Add honey and cook to soft ball stage (236° F.). Add vanilla and nuts. Knead until soft and plastic and press into buttered pan to ½ inch thickness. Cut in squares.

—ABJ—

Honey Candy

"A delicious candy can be made entirely from farm products. Cut pieces of apple and simmer them in honey until clear, then remove and roll in chopped nuts, cocoanut, or coat with chocolate."

This recipe is taken from the February "Progrssive Farmer" published in Birmingham under the editorship of Tait Butler; from the department by Sally F. Hall, "Some Favorite Southern Recipes."

—ABJ—

Lloyd Harbour Located

A card from W. E. L. Harbour of Oregon reports that W. Lloyd Harbour who was reported missing as noted on page 304 of our June issue is found to be alive and prospecting in the mountains of California. The card says, "Words cannot express my appreciation of your cooperation in the search for my missing son."

Such is the power of print. All the journals carried the note of the loss of Mr. Harbour but government investigators and officials of newspapers also helped. To whom goes the glory?

Anyway we're glad, Mr. Harbour, that the boy is found. He is another feather in the hat of organized publicity.

—ABJ—

Sweet Clover Builds Fertility

In the Illinois Farm Bureau Bulletin, recently appeared an article upon the value of sweet clover where corn followed small grain such as oats.

Where corn followed red clover pasture the yield on the study in question was 54 bushels and where the crop followed sweet clover used as a pasture, the yield was 57.7 bushels.

Sweet clover is becoming a major project for building soils with farm bureaus throughout the country and undoubtedly this should have a fine reflection upon the possibilities for honey production in the future.

—ABJ—

Figures from Alberta

Beekeepers of Brooks, Alberta, have approximately 3,000 colonies in the district, according to a recent survey. C. E. Morgan, the largest beekeeper who has 1,000 colonies operates a modern honey plant in the north end of town where honey is extracted by two large machines in the best possible manner. The honey is shipped to all parts of western Canada.

F. H. Fullerton,
British Columbia.

—ABJ—

The Seeds of Discord

The seeds of discord were scattered in every furrow of the creation and came up in a numberless variety of antipathies. Bees are a continuall prey to the Titmouse, often a morsell to the Spider: their habitations are digged through and plundered by Mice and many other enemies have they: yet no contest and hostility is so destructive and dangerous . . . as that with Bees, creatures of their own kind. What is this but an image of that wofull hostility which is exercised between us reasonable creatures. . . . We fight with and destroy each other more than those creatures that want reason to temper their passions. No beast is so cruell to man as himselfe. Where one man is slaine by a beast, ten thousand are slaine by men.

Culled from an early writer by W. H. Hull, Virginia.

Honey Getting

PART V

Continued from July, page 348.

The Control of Queens and Swarming

By E. L. Sechrist,
Tahiti.

Review of the First Four Installments of Honey Getting.

IN successful honey getting, the brood nest must allow the queen to lay as many eggs as needed immediately under the supers in which honey is to be stored. There should be an adequate colony population kept together without swarming, located in a good honey producing region; there should be prompt beginning of work in supers, continuation of this work without interruption, constant replacement of the bees that die, and strength enough at the end of the season to carry on to the next honeyflow.

This program of successful honey getting requires a good queen, plenty of stores, a large brood chamber under the supers, control of swarming, room to store honey.

Management for successful honey getting may be classified under the free queen method or the clear brood nest method. The clear brood nest method includes systems in which the operator confines the queen to the brood chamber of one or more hive bodies in which the brood nest is maintained so the queen may lay freely at a time when her bees will be of most value.

The essentials of practice in the clear brood nest system are: (1) A brood chamber full of all worker combs, clear of honey with plenty of room. (2) All colonies at approximately uniform strength and (3) all colonies kept queenright, with nuclei on hand to provide queens for replacement as needed. (4) All laying queens should be clipped or similarly controlled. (5) An apiary should be worked every eight or ten days during the swarming season. Colonies should be good tempered and foulbrood should be controlled.

There are three systems of management in the clear brood nest method. (1) The one-story clear brood nest system, using only one hive body. (2) The two-story clear brood nest system using two hive bodies throughout the year and (3) the two-story clear brood nest system using two hive bodies for winter and for brood until the beginning of the flow when the colony is confined to one body.

Uniformity in colonies is necessary and is a factor of utmost importance in honey getting. When colonies are uniform, much less work is required of the operator, work may be systematized and done more quickly with the use of fewer skilled helpers. The work may be reduced to a routine so it can be done in a short time. Therefore, in any clear brood nest system of management, uniformity of colonies is the first essential.

Uniformity is secured by having good combs, good queens, plenty of stores in spring, a constantly clear brood nest; and no colony that will not reach a strength determined upon as standard honey storing strength should be permitted to remain in the apiary.

Previous to the honeyflow, colonies may be made uniform by the exchange of brood among healthy colonies and queens should be of the best and maintained so that there is a good queen in each hive at all times. Frequently the control of brood output is accomplished with ripe queen cells rather than with laying queens.

Nuclei are frequently used so that queens are on hand when they are needed and also as a means of testing queens to be used.

And now we continue with a discussion of the control of queens and swarming.

— o —

All laying queens are clipped, or similar control and record obtained in some other way.

All laying queens are clipped, particularly if considerable swarming is expected. Some beekeepers consider clipping queens unnecessary and time wasted. It is almost an essential, however, in producing comb honey. It may be omitted when producing extracted honey under management involving a minimum amount of swarming.

One great value of clipping is that the operator, while looking for the queen, becomes familiar with the

Uniformity makes it possible to use management to the best advantage. With a few helpers and every colony the same, much can be done in a given period of work.

character of her work and the quantity of brood she is producing, and also with differences in appearance between poor and good queens.

Clipping queens is of particular importance where the single story clear brood nest system is being used and the apiary is visited every eight or ten days during the swarming season. Then, with only clipped queens in all colonies, swarms will not leave if they come out between visits, and when the behavior of a colony indicates it has attempted to swarm in the absence of the beekeeper, he will take precautions to prevent further disorganization of the colony and loss of honey it might produce. This procedure is discussed in the installment following this one.

Queens may be clipped at the time of the general spring "round up" when all colonies are being standardized; or when damaged or inferior equipment is replaced; or when drone combs or otherwise imperfect combs are removed from the brood chamber to be melted up; or when inferior queens are detected and replaced for the colony to store a good crop of honey; or when brood combs are cleaned of propolis and burr combs which might interfere with efficiency in managing; or when, in general, the apiary is put into such a condition that the operator can do rapid and efficient work on later visits.

At the time of clipping, when a minimum number of bees is in the hive, it is easy to make a thorough examination for foulbrood without disturbance. The finding and burning of cases of disease at this time does much to minimize its spread later in the season.

Clipping all queens each spring gives a record of the age of the queens, and as one wing is clipped each year, the operator knows how many and what colonies were requeened previously, either by himself or by supersedure. If colony conditions at the time of clipping indicate the presence of two queens, both must be found.

Many operators consider that the labor of clipping during the spring "round up" is less than that necessary to keep records to get the same information. In a system of management requiring that all colonies be maintained in standard condition, records are usually kept by apiaries rather than by colonies, and clipping is perhaps the easiest way of recording the age of queens. Unless the replacing of old and inferior queens is consistently followed, there will be no uniformity in colonies, and many will have poor queens and produce little or no honey, lowering the average production, which should be nearly equal to the amount of honey produced by the best colonies.

Uniform colonies are essential if labor is to be kept to the smallest amount. It is my observation that no beekeeper secures maximum production unless he uses some way to record the age of queens and to replace poor ones. Annual spring clipping, with attention at the same time to the items included in the general spring "round up," is a safe way for anyone managing a large apiary business to prepare for uniform colonies of standard honey-producing strength.

Control of Swarming and Management During the Honeyflow.

The essentials of practice discussed, (1) Securing and maintaining a clear brood nest; (2) Uniformity of colonies; (3) Keeping colonies queenright; (4) Use of nuclei for rearing queens for replacement and increase; and (5) Clipping all laying queens in a general spring round up, have touched on swarm control and are all a part of colony management for the honeyflow, but there remain some practices which pertain particularly to the busy season when the natural colony stores some honey and swarms

If the system of management permits natural swarming, and the individual colony is the unit of management, the apiary is visited or worked every eight or ten days during the swarming season.

Before swarming begins and to control swarming, as the brood chambers become full, one or two combs of pollen and honey are taken away from a colony at each visit and full sheets of foundation placed in the center of the hive. Sometimes, also, brood is "pulled" (viz: combs of brood, preferably sealed, are removed) and used elsewhere. The object always is to have plenty of room for the queen up to swarming time, or until no more of the eggs laid will produce bees useful in storing honey. In other words, to keep a clear brood nest.

With a short honeyflow, it may not be necessary to keep the brood nest clear for brood rearing, since the beginning and end of the honeyflow may come so close together it is all right for the brood nest to fill up with honey and pollen, restricting egg laying.

When, however, the honeyflow is long, or there are several flows following each other over five or six weeks, it is necessary to keep up the working force of bees by continuance of brood rearing, or by adding bees in some way, as by uniting colonies or by the use of package bees.

It is often noticeable that in the first two or three weeks of a long honeyflow a good surplus of honey is stored. During that time many field bees die, but their places are taken by young bees from brood in the hive at the beginning of the honeyflow, so the working force is not greatly decreased.

During the next two or three weeks, however, the death rate goes on as usual, but if there are few replacements because the brood nest is crowded with honey and the brood space lessened, the working force may become reduced rapidly. The hive will then show little gain in weight, not because there is less nectar, but because the field force is too small to gather it.

The proper use of a clear brood nest system does much to prevent decrease in colony population and to keep the colony up to standard honey-storing strength through a long honeyflow, insuring that during the height of the flow the brood chambers will be almost empty of honey except for fresh nectar which will be moved into the supers at night as evaporation goes on.

As the operator during the time of swarming proceeds with a day's work, combs of honey and pollen taken from brood nests accumulate and are used as needed. When a colony is found that insists on preparing to swarm in spite of cutting cells or taking away brood, then all of its brood is taken away and two or three combs of honey and pollen are placed on each side with four or five full sheets of foundation in the middle of the hive. The bees soon empty these combs of honey and carry it into the supers to make room for the queen to lay. As rapidly as the foundation is drawn out, this should be filled with eggs.

At times, instead of taking away brood, queens are taken out and replaced with cells or with virgins. If the queens that are removed are good and are of the previous year, they are saved and introduced to colonies where a virgin has failed to mate, or which, for some other reason, are queenless at a time when a queen should be present. This is an emergency practice and is often useful when the supply of queens in the nuclei is low.

If a swarm has come out of a colony between visits and has returned because the queen was clipped, the operator knows this at once by the behavior of the colony. All the brood is then taken from the colony and the queen, if not already lost, is killed or is caged for use as just described, and the brood removed is used in equalizing colonies or in strengthening nuclei. If it is desired to keep all equipment to a minimum, or if increase is desired, the whole brood chamber may be set on a new stand and the parent colony provided with a new brood chamber, as is done when a colony is "shaken" to control swarming.

Maple Sugar and Honey

By Walter H. Hull,
Virginia.

IN regard to maple sugar I am about an average layman. We used to make it on the farm when I was a boy (and never got enough out of it to more than pay for the fuel, let alone pay for our work). Since then I have given it little attention except to note its presence occasionally on the grocer's shelves. I never bought any, but sometimes I find it on the table of some friend. In all this time I have never found it in its pure state; it was always mixed with cane sugar, and so labelled.

This sugar differs little from cane sugar except in flavor, having none of the beneficial qualities peculiar to honey, so that the chief disadvantage in mixing it with cane sugar would seem to be that if you mix an equal amount of cane sugar with it you will have twice as much to dispose of —twice as many customers to locate and sell to; and since the adulterated mixture must sell at a lower price, the result would be a lot of extra work with little or no extra pay. The same rule would apply to honey, if any one were foolish enough to adulterate honey. If the maple sugar men are really making an effort to take the adulterated product off the market I suspect that this is their chief reason. They realize that adulteration is a back-handed kick at their own noses (or something of that sort) and want no more of it.

On the other hand, I have never seen any extracted honey in the market without name and address of the bottler and adequate guarantee of purity. Comb honey, I think we can agree, carries its own guarantee of purity. Much of it, too, is sold under the producer's or packer's name, a practice which is growing rapidly.

My guess is that the difference in price is due largely to the fact that there are several times as many honey producers as there are maple sugar producers and thus the marketing of maple sugar is more easily controlled. This, and the fact that more labor is involved in producing maple sugar.

The most important factor in depressing the price of honey is the large proportion of producers who make no effort to really "sell" their product. Frequently this is because they don't know how. But sometimes it is because they are too lazy to make the effort, even if they did know how. Beekeeping has a strong attraction for men disinclined to work. It is hard work to go out and tap a lot of maple trees, collect the sap, chop wood for fuel and boil the stuff down to sugar. I can't imagine a lazy man producing even a little maple sugar. Real beekeeping is hard work enough, too, but a certain amount of honey can be produced without much labor and what we might call the lower ranks of beekeeping are full of this type.

They argue to themselves: "Well, this crop of honey didn't cost me scarcely anything, so whatever I get for it will be clear gain"—an attitude inimical to salesmanship of any kind, and one which the maple sugar producer is not nearly so likely to fall into.

The remedy, I suppose, is a larger proportion of big, broad-gauge men in the honey business. We might get them by new enlistments into the ranks, if we could be sure of getting such men to enlist; or we might get them by developing them within the ranks, which I think is the only way we ever will get them, or ever will remedy the chaotic conditions that prevail in honey marketing.

—ABJ—

The Wax Moths

Referring to your Review of Dr. Whitcomb's bulletin on the Wax Moth on page 332 of July, I note the statement "Apparently reports of the lesser wax moth are due to small size individuals of **Galleria mellonela** which have been improperly fed." The bulletin says "in Louisiana," while your report indicates that the lesser wax moth does not exist and never does any damage.

In general, the assumption is correct, but the lesser wax moth, **Achroia grisella**, does exist and does some damage, as pointed out in our article on the subject in November "Gleanings."

I notice that Dr. Whitcomb did not mention the injury of the Indian meal moth which may be found working on wet extracting cappings, on brood combs with honey, on pollen, dead bees or dried fruits such as prunes, or even furnishing the meat portion of our diet in some of the breakfast cereals.

V. G. Milum,
Illinois.

SuccessfulCooperation

By H. J. Rahmlow, Sec.,
Wisconsin Horticultural Society.

Every now and then someone brings up the point that honey today is being sold much as butter was sold in the days before the creamery. We all realize, of course, what the creamery has done for the butter industry —equalizing quality, providing a steady market for the producer, and most important of all, saving the producer a great deal of expense in peddling his own dairy butter.

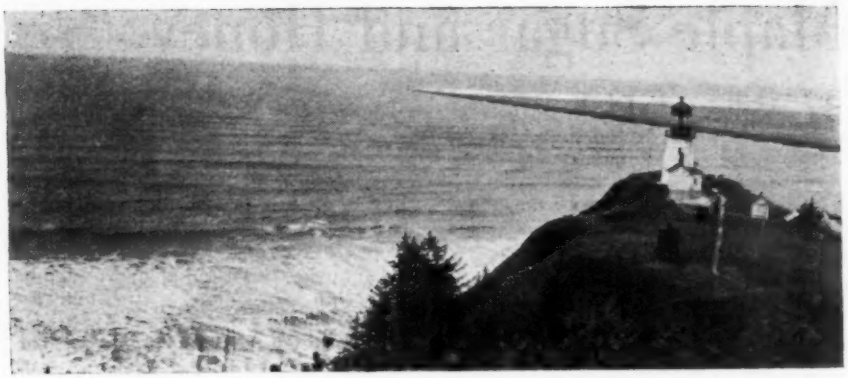
Can a cooperative honey packing plant do the same for the beekeeper? There is some reason to believe that it could. Such an organization could be of great advantage to the honey producers.

The Ontario Honey Producers' Cooperative with offices at Toronto is an example of a successful cooperative. More and more producers are joining it. Some of their experiences are valuable to anyone interested in cooperative movements. They have found it necessary to do all the grading and packing in a central plant. They have found their biggest mistake is in allowing producers or members to pack honey for the trade under cooperative brand. Such a pack will vary so much that when sold numerous complaints are registered about faulty straining, too much scum, and careless packing. Some honey even fermented.

The Ontario plan of selling is to pack different grades of honey in different colored pails. They have found that the housekeeper can remember colors better than grade marks, so they pack white honey in a blue tin and call it "Beekist" Blue Label. The golden honey is packed in a yellow tin which is marked "Beekist" Yellow Label. The amber honey is packed in an orange, and the dark in a red tin. The consumer, therefore, can always get the same color or quality of honey by simply buying the same colored pail.

The Sioux Honey Association at Sioux City, Iowa, is also a successful producers' cooperative made up of a number of producers in the western Iowa and eastern Nebraska region and is successful in its operation.

The American Honey Institute tells us that inasmuch as they are creating a demand for honey in cooking, beekeepers should see to it that the housewife can get honey at any time of the year. Quite frequently the beekeeper is sold out when spring comes and many stores stop handling honey except in fall and winter. A cooperative organization would see to it that the stores be supplied with honey the year around, making it a standard commodity on the grocery shelf. An organization could also advertise more than individual beekeepers.



North Head Light and Jetty that protects the mouth of the great Columbia River, entrance to Portland's far-famed harbor.

Beekeeping in the Pacific Northwest

By Natt N. Dodge,
Arizona.

AN item in a recent issue of the American Bee Journal attracts attention to the potentialities of the Pacific Northwest. Having lived in the Puget Sound country for eleven years during nine of which he was actively engaged in the beekeeping industry and closely in touch with both producing and marketing of honey, the writer feels that a frank statement regarding the factors favorably and adversely affecting beekeeping in the Pacific Northwest would be of value to anyone contemplating a move to that section of our country.

Chambers of Commerce, publicity writers, and "boosters" in general have developed to its highest degree the art of telling "the truth and nothing but the truth," but carefully omitting those portions of the whole truth which might cast a shadow over the brightness of the picture which they desire to paint. As someone has very pertinently remarked, "You can prove anything with statistics." In this article, the writer is attempting to tell the "whole truth" without the use of either blue or rose-colored glasses to hold up before the reader.

Unquestionably commercial prospects for the Pacific Northwest appear bright. Flow of population to that section, stimulated by such projects as the Coulee Dam and by the exodus from the dust-blanketed Central states, will undoubtedly stimulate consumer demand. The absorption of American goods, habits, and customs by the Orient point to a growth of trans-Pacific commerce. Practically

A typical western Washington apiary, surrounded by hundreds of acres of burned-over land, carpeted with blossoming fireweed.

all freight and passengers to Alaska pass through Northwest ports. The majority of the agricultural surpluses, inevitable if thousands of acres are put into production with water from the Coulee Dam, will seek markets via Portland, Spokane, Tacoma, and Seattle. In addition, the delightfully mild and equable climate and the year 'round greenness of nature west of the Cascades will exert a powerful influence in holding present residents and attracting new.

For purposes of this article, let us define the Pacific Northwest as the states of Oregon and Washington. The tier of states immediately east consisting of Idaho, Montana, Wyoming, and Utah may be considered as the Inter-mountain Section. The Cascade Mountains divide Oregon and Washington, from north to south, into two portions. Thus the climatic (and beekeeping) conditions of western Oregon and western Washington are similar, while eastern Washington and eastern Oregon have much in common. In this article, the major factors influencing beekeeping will be discussed with the western sections of the two states considered as one unit, and the eastern portion of the two taken together.

It is the writer's opinion that, for successful honey production practices, an area should have two major assets; (1) dependable production resources; (2) stable markets. Obviously, sections of the country handicapped by above-average production hazards are not conducive to successful beekeeping. Just as important to profitable apiculture are dependable markets. With honey prices very nearly on a level throughout the country, the beekeeper who is forced to ship his product hundreds of miles to market must be content to deduct the transportation expense from his returns. To do so and still compete with the close-to-market beekeeper, he must be favored with an above-average production set up so that his saving on production costs may be applied to freight.

Fireweed, pink beauty, fragrant bearer of the finest honey.

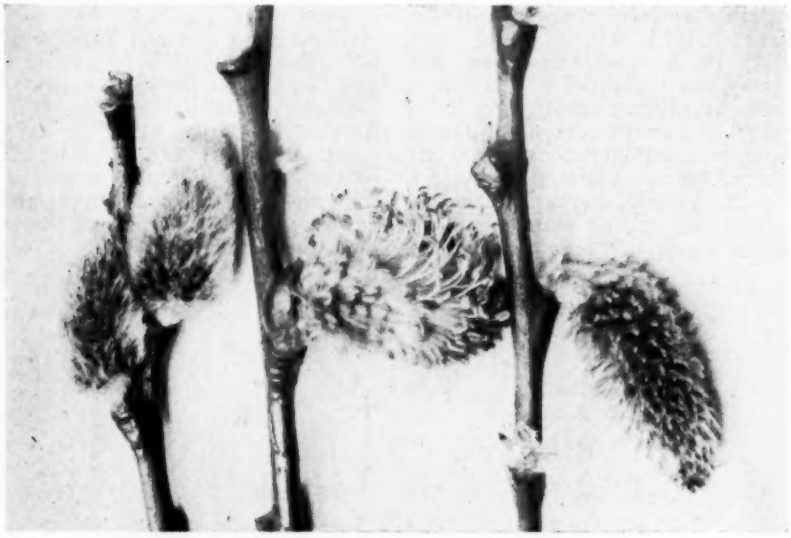
Let us consider for a moment production and marketing conditions in the Pacific Northwest so that the reader may compare them with these factors in his own locality when contemplating a change in location. West of the Cascade Mountains the major source of nectar is the fireweed. This tall, pink-flowered herb is among the first of a succession of plants and shrubs in the process of natural reforestation following on the heels of the logger. For half a decade the fireweed yields heavily, but gradually becomes crowded out by willow, bracken, salal, and other plants and shrubs in the succession series. At the present time, throughout the greater portion of western Oregon and Washington logging operations are far back in the relatively inaccessible portions of the Cascade and Olympic Mountains. To reach them, beekeepers must haul in their apiaries either by truck or over the rails of the logging roads. Bears, rigorous winters in the mountains, and a lack of spring honeyflows for building up colony strength make it highly hazardous to leave the bees in these locations the year around. A few beekeepers successfully practice migration to the fireweed pastures, wintering in the coastal valleys where the cultivation of raspberries and blackberries and the presence of white and alsike clovers assure bountiful spring honeyflows occasionally yielding a small

Logged-off land where fireweed flourishes. Maple, adler, hazel and willow help the braken crowd out the briefly established nectar producer.

Salal is a valuable spring nectar producer west of the Cascade mountains.

Madrone aids the beekeeper west of the mountains to rear brood when the weather is favorable in May.

Oregon maple is also valuable in brood rearing west of the Cascades.



In favorable seasons, bees begin to work on willow in February. They gather pollen from the staminate blossoms (center) and nectar from the pistillate (right).

surplus before the bees are moved to the fireweed in June. A few beekeepers occupy choice locations where low elevation logging operations are still in effect, or where sufficient stands of vine maple, salal, wild blackberries and other native vegetation provide spring nectar in sufficient quantities. However, and here is the major problem confronting producers west of the Cascades, spring rains and inclement weather frequently prevail without interruption well into the month of May. Chilly, cloudy weather keeps the bees in the hives until the season is too far advanced for them to build up sufficient strength for the fireweed flow. Again, a season of perfect spring weather with hives boiling over with bees may be followed by a hot, dry summer and acres of fireweed bloom yielding almost no nectar. It has been the writer's experience that beekeepers dependent upon fireweed average only one season of high production in four years. The remaining three years show two with a surplus of less than fifty pounds per colony, and one with so little storage that the bees have to be fed through the following winter. Taken over a period of years, these conditions result in an average per pound production cost of about eight cents. This average is what makes or breaks the beekeeper.

Uncertainty of production plays a highly important part in the marketing situation. As a representative of the largest cooperative honey marketing organization in the Northwest, the writer was privileged on several occasions to meet with other commercial honey packers for the discussion of the problems of honey marketing. These men were unanimous in declaring that one of their major difficulties was maintaining the uniformity of the flavor and color of their pack. Local producers, they declared, could not be depended upon either for honey of the same quality

That great inland waterway, Puget Sound, brings the commerce of the world to the Pacific Northwest.

from year to year, or for anything like a definite quantity. One season a producer might bring in ten tons of water white fireweed honey, and the next season have to offer a ton and a half of light amber vine maple and blackberry. Consequently all but one or two of the major commercial honey packers in the Pacific Northwest purchase their annual supply of honey from the larger producers of California or the Inter-mountain Section. This largely explains the apathy of buyers to the pleadings of local producers coming to town with a truckload of honey in five-gallon cans. This apathy, together with the low prices offered for west-of-the-Cascades honey has forced the majority of beekeepers, since the failure of the Cooperative, to pack their crops in retail containers and sell through local grocery, house-to-house, or roadside stand channels.

Although far less honey is produced in western Washington and Oregon than is consumed in the big seaport cities of those states, the prices paid by commercial packers for honey consistently is too close to the bare cost of production to enable beekeepers to survive by marketing through these channels. Importations of large shipments of California, Inter-mountain, and Hawaiian honey form the chief sources of supply for commercial packers. One Idaho producer annually trucks his crop to Portland and Seattle disposing of it, both in bulk and in small containers, through a coastwide wholesale distributing chain.

East of the Cascade Mountains a somewhat different picture is presented. In the irrigated sections of central and eastern Oregon and Washington, sweet clover and alfalfa are the chief nectar sources, while fruit bloom provides a spring flow. Beekeepers add to their slender incomes by renting entire apiaries to fruit growers for pollination purposes. A decade ago, beekeeping flourished in the irrigated sections of the Pacific Northwest. However, in the fruit-growing sections the increased use of arsenical sprays throughout the summer months has gradually driven the beekeepers away from the orchards. Recently, the use of arsenic in combatting the inroads of the Colorado potato beetle has forced beekeepers to shun the vicinity of the potato fields, and in consequence safe bee pastures have been greatly reduced in acreage. Some beekeepers have been forced to move, others have given up in disgust, while the remainder are trying to carry on under these major handicaps. Higher production costs have been the inevitable result, and east-of-the-Cascades beekeepers find it increasingly difficult to ship their honey to coast cities in competition with the honey of California and Inter-mountain producers. To complicate matters, chain distributors of foodstuffs bring considerable honey from the coast packing plants into the inland towns and cities, so that the producer east of the mountains not only finds difficulty in selling his crop to the coast packer, but must meet the competition of this same packer in his own corner grocery.

To sum up the situation, beekeepers throughout the Pacific Northwest within the last decade have found a gradual increase in the cost of producing honey through factors making migratory beekeeping necessary. West of the Cascades, it is the retreat of the fireweed pastures; east of the mountains the ever widening use of arsenical sprays. In 1932, the United States Bee Culture Field Station at Davis, California, announced the results of a two-year investigation of the costs of honey production in the state of Oregon which indicated that honey in bulk containers in his own honey house cost the beekeeper approximately 6¼ cents per pound. At that time commercial honey packers were paying approximately 5 cents per pound for honey laid down at their packing plants.

The writer, not being blessed with the ability to look accurately into the future hazards no prophecy as to the course of honey production and marketing in the Pacific Northwest in the coming years. General business improvement, increased population of the area, particularly in the coastal cities, and the thousands of additional acres of alfalfa and other nectar producing crops which will undoubtedly occupy the soon-to-be-irrigated lands below the great Coulee Dam may be of sufficient magnitude to produce a great swing in favor of the beekeeper both in production and marketing factors. The introduction of new crops west of the Cascades, may replace the extensive pastures which have been lost through the retreat of logging operations and the fireweed. A great change in climatic conditions with a marked decrease in the cool, cloudy, moist days of springtime west of the mountains cannot be anticipated with any degree of certainty.

With all of these factors, both present and future, in mind, the writer suggests in all sincerity that any beekeeper considering a permanent move to the Pacific Northwest should exercise the utmost caution. Send one of the family out there, if possible, to get a job and for at least a year thoroughly investigate all the phases of both production and marketing. Then, if prospects appear reasonably bright, the family will find that they have moved to one of the most delightful sections of our broad land in which to live. The writer is still homesick for the Pacific Northwest. He wishes that he had been able to make a living in the honey industry there.

—ABJ—

A Simple Way to Clarify Honey

I have been trying a method of filtering honey in a way that any beekeeper can do with the least expense. A short time after the honey is extracted, I warm it so it will be quite thin. Then I use a brass screen of 50 mesh to strain it, running the honey into a clean tank, and while the honey is still warm I pass it through about four plies of cheese cloth. I buy the cheese cloth from a hardware store, because it is of a finer grade than that carried by dry good stores.

Be sure the tanks are clean before the honey is put in them. In this way I find that the honey comes out nice and clear and it takes quite a bit longer for honey to granulate than if I did not take the trouble to do as I have just stated.

Most people think the honey better if it is clear, and it sells much better too. We must make all we can out of our honey, so it pays to take a little more trouble with it and satisfy the dealer or the customer that much more.

F. A. Korn,
California.

—ABJ—

Florence Fontaine Burned By Wax

Florence Fontaine, 14, of Winnipeg, was badly burned in the spring of this year by beeswax which boiled over on the stove. She was alone in her home at the time melting wax. When it boiled over, the wax burst into flames setting her clothing on fire. She ran to the home of the nearest neighbor where a blanket was thrown about her and the flames extinguished.—Clipping from the Winnipeg Free Press by L. T. Floyd, Provincial Apiarist.

—ABJ—

Fuel for the Smoker

Gather sumac bobs and dry them. Take old burlap bags and cut them in strips 5 or 6 inches wide and wrap around the bobs so they fit the smoker. Take saltpeter and make a solution as strong as you can. Dip the bundles of fuel in this, standing them with the wet end up to dry. Then they are ready to use. Light the end with the solution on it and you will have a smudge that is hard to beat.

Chas. H. Barnard,
Michigan.

Salesmanship Without the Frills Sells Honey

By J. J. Stapp,
California.

"MARKET conditions may change but human nature doesn't." That brief statement is made by F. R. Buchanan of Glendale, California, as an explanation of how he has developed a most successful business which continues to be so from year to year.

Last year Mr. Buchanan's bees produced 125 tons of sage honey which was marketed through 1500 grocery stores in Southern California. Many of these accounts have been sold personally by Mr. Buchanan. Absolute honesty is of course the first requisite in developing this large output. But behind that honest merchandise stands a selling method based on human nature. Knowing how to appeal is the keystone on which his sales success rests.

"From the small roadside stands honey sales have today moved into the large super-markets of this part of the country. These markets sell hundreds of dollars' worth of honey compared to the roadside stands of yesterday. But our approach to the customer, whether he be grocer or consumer, is the same, relatively speaking. It is based upon an appeal to **human nature.** This appeal may perhaps be miles away from the subject of honey itself, or it may be strictly about honey," Mr. Buchanan continues.

The person interested is the person who becomes a customer. How to obtain that person's interest? The average psychologist would say "self interest" but this man's experience demonstrates that it is interest which takes the man out of himself.

As an instance of this, he cites the sale of his honey to a man who controls the buying for fourteen supermarkets. His salesmen had been trying to open this account but had failed. One day, dressed in his working clothes, Mr. Buchanan talked to this man.

He told him the story of bees, a story so familiar to all beekeepers that it will not be recited here. But because the story is so familiar it has become a commonplace. The simple facts were new to this man, however, as they are to most laymen. Yet the producing of honey seems to be a marvel to the man who first hears it. This was proved when the man, too "busy" to see salesmen, insisted upon getting in his car and going with Mr. Buchanan to see the bees.

Only after several hours did the subject of buying honey arise. Naturally the man was sold—and sold so thoroughly that he has been a leading customer ever since. In sum, here was a big business man, accustomed to sharp dealings in the competitive food field of southern California, succumbing to the simple story of bees!

That story has been told time after time by Mr. Buchanan. It never fails to arouse interest. While it does not always make the sale, it always makes a friend. From friends grow more friends. Business, therefore, is only a matter of human nature with Mr. Buchanan—and nature that does not change no matter what comes in the way of booms and depressions.

Letting the bees both make and sell the honey. Such is the gist of this unusual sales method. As before mentioned, the quality of the honey is of course an essential to the successful use of this program. Curing, Mr. Buchanan remarks, is the backbone of his quality product; he cures from forty to sixty days, no matter how rushed the market may be.

The story of bees is told on all available opportunities, before clubs and other such gatherings, directly to men who buy honey, and so on. Properly told, it has never yet failed to put human-interest into the golden comb as the quality making it more precious to the consumer. But human interest need not stop there. Another instance of Mr. Buchanan's use of this divine spark is shown in his famous German shepherd dog, Fritz. This creature has been carefully trained by his owner and does some amazing tricks—so good, in fact, that the movies want him. Known over the entire trading area, this dog, like the bees, speaks for himself. He interests everyone who sees him. Seemingly far removed from the business of selling honey, Fritz nevertheless is a powerful salesman because he arouses human interest.

Selling honey is therefore, in the final analysis, not selling price nor any such tangible feature. It is selling human nature. The bees have it to profusion. Its use by their owner is bound to make him a super-salesman.

A New Kind of Beekeeper

By O. W. Haffke,
Nebraska.

For the last two or three years, the increasing amount of package bees shipped from the South to the North is noticeable. This is producing a new kind of beekeeper in the South who raises bees for numbers only and not for other desirable qualities.

In the same magazines we read of bees that are gentle, that are possibly resistant to disease, that give little trouble with swarming, that rob little, and best of all, are good honey gatherers.

Now, where oh where, are we going to secure or build up a strain of bees that possess these qualities, which earlier beekeepers attempted to develop, if prolific package breeders become the dominant factor. Now, the attempt is to secure bees, bees and more bees. We should look to the future.

———*ABJ*———

The Demand for Honey

By E. S. Miller,
Indiana.

Do we remember that three or four years ago honey was a drug on the market? That hundreds of tons were carried over to the following season with rusting cans and other attendant losses? That wholesale prices ranged between four and five cents per pound? Do we realize that today the price has almost doubled? Honey is scarce and will all be cleaned up before the next crop appears. And why?

The price of a commodity is said to depend upon supply and demand. This undoubtedly is true in regard to staples but, as has been demonstrated in the last dozen years, the supply of honey as measured by the amount produced, has had little effect upon the price, due to the fact that it must compete with sugar and other sweets. Therefore, demand is the chief consideration.

But what has brought about increased demand? Some say that improved business conditions have helped to increase demand and hence brought about an increase in prices. That this has had little effect is evident since the price of competing sugars has not advanced in any appreciable degree.

To what then may we attribute improved marketing conditions and prices? In my opinion it is due chiefly to the advertising and other activities of the American Honey Institute. Its work constitutes the least

expensive and most effective advertising we can hope to get. With an increase of only one cent a pound the producer of a half ton of honey is benefited to the amount of ten dollars. The fifty-ton man is benefited a thousand dollars' worth.

Can we afford to refrain from sending in our small contribution and allow the work of this organization to lag? Are we going to sit back and let George do it? What, then, can we expect if George doesn't come across? Do we want to produce more four-cent honey? A contribution to the Institute is not a donation or a gift, it is the most profitable investment a honey producer can make.

—ABJ—

Possible Increase of Bee Pasture

I have just come from a meeting of farmers where they were offered $9.00 an acre for sowing alfalfa or sweet clover on 15 per cent of their farm. Strangely, they are slow in grabbing that $9.00. The neat sum of $231.00 for seeding 24 acres of each 160 acre farms.

In almost every part of the country alfalfa or sweet clover is a valuable investment year after year, in addition to building up the land. Farmers are stubborn, however, in accepting free money. This $9.00 an acre would soon pay for the land. It makes a valuable addition in bee pasture. J. H. Sturdevant,
Nebraska.

—ABJ—

Gwin on Beeswax

A reprint of the Journal of Economic Entomology for June 1936 is entitled "Further Developments Concerning Wax Production by the Honeybee Colony" and is written by Clarence M. Gwin on the basis of a study made at the University of Wisconsin.

Mr. Gwin's studies were made on colonies confined and fed with definite honeys and sugar syrup. His conclusions are that bees will produce wax without being fed pollen and that bees can readily adapt themselves to become wax producers. In confinement, sugar fed bees will live longer and produce wax longer than will honey fed bees.

—ABJ—

New Bulletins

Two new bulletins of interest to Iowa beekeepers have just come from the press at Iowa College of Agriculture. One is entitled "Preparation of Honey for Sale" and the other is "Wintering Bees in Iowa." Both are by Prof. F. B. Paddock, State Apiarist. Copies may be secured from the Extension Service, Iowa State College, Ames, Iowa.

Moth Balls for Wax Moths

By W. H. Lewis,
British Columbia.

IN one of your questions in "Editor's Answers," it is asked how wax moth may be kept from combs. The answer given is "by bisulphide of carbon."

That, of course, has been used for years by many but I have never found it satisfactory. I have used many gallon cans in forty years. It will kill all the flying moth and possibly most of the larvae, but it has no effect on the unhatched eggs in the combs, and in a short time the combs must be gone over again or there will be enough larvae hatching to destroy them, particularly where the winters are mild and the larvae are not killed by the cold.

Here on the coast of British Columbia, we seldom have more than eight or ten days of frost, and larvae in combs live all winter. Many years ago, being at a pretty fair location, I built up to about 90 colonies and had considerable equipment, about 250 extra eight-frame supers with extracting combs. The location was gradually cleared and built up until now it will not support over ten or twelve colonies, and the surplus does not amount to over fifteen pounds to the colony.

This condition left me with combs that seldom were put on the hives. Foulbrood, a few years ago, and wax moth, reduced the number of supers to about 125, and it has been a continuous fight to keep out the moth.

Three years ago, I noticed quite a number of moth about the first of May in the storage room of my honey house and knew that I had to save the combs. I was a little disgusted with previous trials of bisulphide, and wondered if I could not find something more effective. I thought of moth balls or camphor balls. I went to town and bought a ten cent package. I looked the supers of combs over carefully, killing all wax worms I could find and put the supers on the clean floor with two moth balls about three combs apart on top of the frames. The supers were fixed this way stacked seven high with a wood cover on top. Ten cents' worth of moth balls were used in fifty supers.

I supposed that the eggs of the moth in the combs would not be killed, so in about a month I again went through all the combs, killing any of the worms I could find that had hatched, stacking the supers again and leaving them for a year until May 1st the following season.

On looking over the combs at the end of the first year, not a single moth or wax worm was to be found. The moth balls put in the year before had evaporated to about the size of a small pea.

Again I got a new supply and treated the supers as before, except I made three stacks of supers in which I only put one ball in each super. The following spring, an examination showed there were no moth or larvae in any. So, I put away the same stack of supers all with only one moth ball to each super, and the whole lot were perfectly clean of wax moth and larvae in the fall.

After three years' test, I can recommend this way of handling wax moth as efficient, accomplished with only a small amount of labor and with only a slight expense for material.

Report of January 10, 1936.

I have lately gone over fifty of the supers put away with only one moth ball each, and there is not a sign of moth alive in any of them. Of course, the saving is only about five cents to each fifty supers by using one ball, so it is not worth the possible risk. The fact, however, that there is no sign of moth with this method of control after three years makes me confident that it can be recommended.

—ABJ—

Indiana Bee Bulletin

Extension bulletin No. 158 containing 20 pages entitled "Beekeeping in Indiana" is just out. It is a revised bulletin by B. Elwood Montgomery and deals with the following subjects — Beginning Beekeeping, Package Bees, Equipment, Manipulation, Colony Activities, Seasonal Management, Swarm Control, Honey Products, Diseases and Marketing, etc.

Copies of the bulletin may be obtained by addressing the Agricultural Extension Department of Purdue University at LaFayette, Indiana.

—ABJ—

Early Chinese Beekeeping

There is a great abundance of honey in China, for they wonderfully delight in keeping of Bees, these is also so much wax you may lade ships, nay fleets therewith. — From an early writer. (W. H. Hull, Virginia.)

Influence of Pollen Reserves on the Surviving Populations of Over-Wintered Colonies

By C. L. Farrar,
Associate Apiculturist, Bureau of Entomology and Plant Quarantine,*
United States Department of Agriculture.

IN an earlier paper** the author pointed out that brood rearing during the inactive season was not necessarily abnormal or a mark of poor wintering. Surviving colony populations at the time new pollen became available in the spring were nearly proportional to the amount of reserve pollen provided in the fall. Evidence was shown that this pollen was actually used in brood rearing, which gave the colonies a proportionate advantage in both size and the vitality of their population.

Further observations on the influence of pollen reserves for wintering colonies support these preliminary results. Since it was found in the first year's work that pollen reserves need to be fairly large to produce significant effects on populations, no effort has been made since to provide colonies entirely free of pollen. Less than 50 square inches of pollen is considered as negligible reserves. The pollen areas were estimated by superimposing over each comb a grid divided into square-inch areas. Allowances were made for partially filled squares, but not for variations in depth to which cells were filled. Each side of the comb was estimated separately. Approximate estimates may be obtained in the field by making linear measurements of the pollen areas. The limits of pollen areas covered by sealed honey may be located by making occasional scratches to break the wax cappings. Under field conditions well-filled pollen combs seldom exceed 100 to 150 square inches.

Table 1 summarizes the results for two series of colonies representing two locations, 1933-34. The Sechrist series was near the river, where dandelions were abundant for the last two weeks in May. The Campus series was a mile and a half east, with the entire foraging area, including city lawns, toward the river. This difference in location contributes to the smaller gains in honey made by the latter series during the dandelion flow.

The value of reserve pollen is definitely shown. Both the spring populations and the gains in honey made during the dandelion flow increase roughly in proportion to the amount of reserve pollen. Winter losses in honey were influenced by several factors which make it impractical to attempt to correlate them with pollen reserves. First, the feeding of brood in those colonies provided with pollen increased the consumption of honey; second, colonies in groups C, G, and I were without pollen until March 27-28 third, populous colonies, particularly in the Sechrist series, may have made appreciable gains in honey from dandelions one or more days before the first spring records were taken. However, when the gains in honey made between May 14 and June 9 are subtracted from the winter losses, the cost in honey for wintering each group shows an obvious advantage obtained from generous pollen reserves.

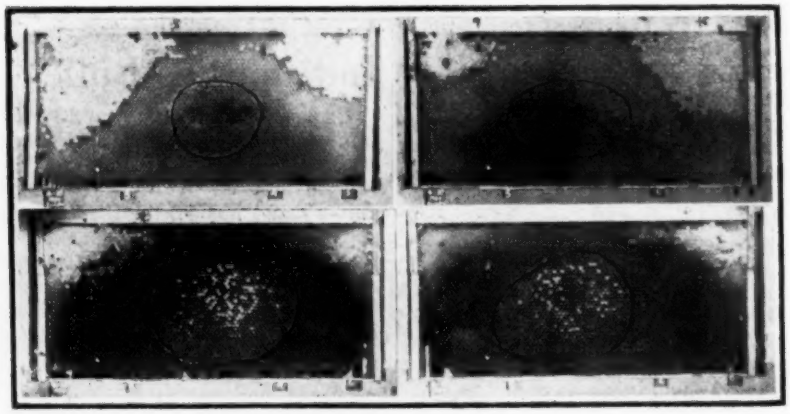
The colony in group B was headed by an inferior queen, as was indicated by a very spotted brood nest. One colony in group H was provided with 532 square inches of dry pollen at least two years old. It used this with great difficulty and survived the winter in much the same condition as the colonies in group E, which were provided with only negligible pollen reserves.

Table 2 shows the same general trend in results for 1934-35 as was found in the preceding year, but since new pollen became available 5 to 6 weeks later in 1935 than in 1934, the surviving populations are smaller. Much larger pollen reserves would have been desirable for this season to insure maximum populations for the dandelion flow. The dandelions did not have so long a blooming period as in 1934, but we cannot say that they did not yield nectar so copiously, since the colonies did not

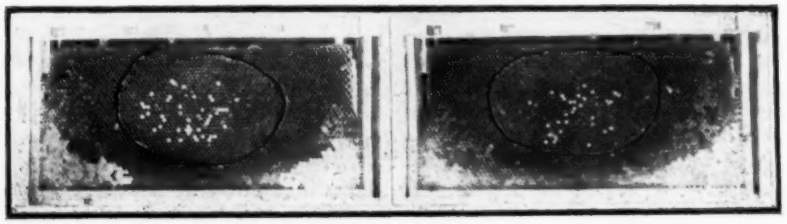
*The Intermountain Bee Culture Field Laboratory is located at Laramie, Wyo., and is maintained cooperatively by the University of Wyoming and the Bureau of Entomology and Plant Quarantine, United States Department of Agriculture.

**Farrar, C. L. 1934. Bees must have pollen. Gleanings in Bee Culture 62:276-278.

FIGURE 1



Colony 5. Fall pollen reserve negligible. None added. This is the brood nest April 10, 1934.



Colony 11. Fall pollen reserves negligible. None added. This is the brood nest April 10, 1934.

have sufficient bees to make large gains.

The Corthell series was in the same general location as the Sechrist series of the preceding year. The Hatch series was approximately 15 miles southwest of this location.

Figures 1, 2, 3, and 4 show typical contrasts in the brood nests in colonies in groups A, C, and D (table 1) as found on March 28 and again on April 10, 1934. These are equally representative of groups E, G, and H. The double-column arrangement is used to show both sides of the comb.

Figure 1 shows the brood nests of two colonies in group A on April 10 having no pollen available to feed the newly hatched larvae. The area occupied by eggs and larvae 1 to 1½ days old is enclosed by a mark scratched on the comb before it was photographed. The same brood nests on March 28 are not reproduced, but they were of the same character as on April 10. The brood nest for March 28, in figure 2, is typical of all colonies unable to mature brood for lack of pollen.

Figure 2 shows the transition that took place in a brood nest of group C between March 28, when pollen was added, and April 10. The brood shown for April 10 probably represents the egg production for a 17-day period, as it includes the eggs and newly hatched larvae present on March 28 plus the eggs laid between the two dates. It was evident, however, that the addition of pollen stimulated the queens to greater egg production.

Figures 3 and 4 show the brood nests, on March 28 and April 10, of a colony in group D which had had a generous pollen reserve since the preceding fall. Brood is present in one additional frame on April 10, but the total amount of brood is not greatly different from that present on March 28. However, from 8,000 to 10,000 young bees probably emerged during the period, which more than replaced the loss of overwintering bees.

Colonies in groups C and G used up the 250 to 300 square inches of pollen in less than three weeks. This suggests a possible basis for determining the amount of reserve pollen required in different localities. Approximately 100 square inches of pollen should be made available for each week of brood-rearing prior to the date when sufficient pollen can be collected from the field. It is evident that larger quantities will be consumed during the active season, when brood-rearing rates reach levels of 1,000 to 1,500 daily.

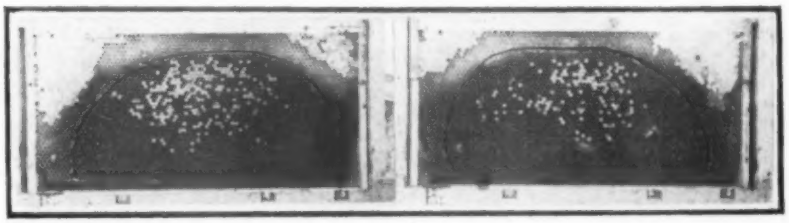
It has been observed in the course of these studies that normal colonies in the same locality vary greatly in the amount of reserve pollen they

Table 1. Average effect of pollen reserves on surviving populations of overwintered colonies, 1933-34*

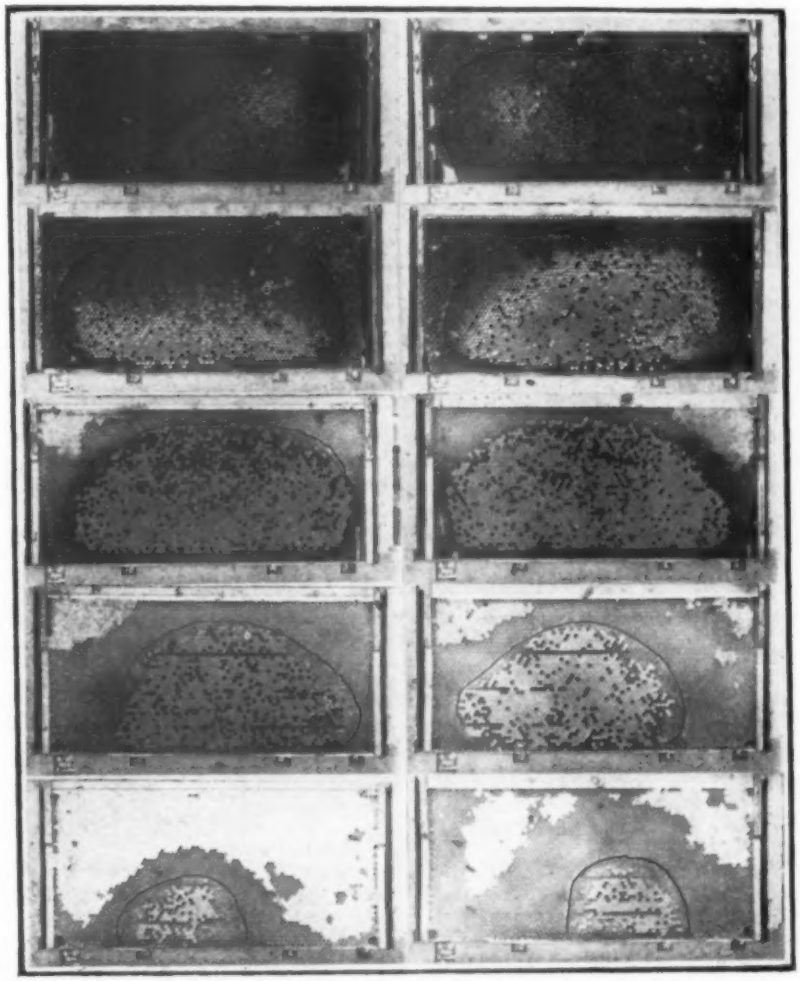
Group	Number of colonies	Spring Population Thousand bees	Spring Population Percent of fall bees	Reserve Pollen, square inches	Winter Losses, in pounds of honey	Gain or Loss Thousand bees	Gain or Loss Pounds of honey
Campus Series:						**May 14 to June 7**	
A	3	20.0	53.4	None	53.7	+9.8	+0.7
B	1	18.7	57.7	270	52.9	+4.8	+9.3
C	6	26.1	74.3	296**	49.4	+5.8	+15.4
D	2	32.2	81.1	625	64.6	Colony Removed	
D***	1	33.0	96.8	619	62.7	+12.8	+21.4
Sechrist Series:						**May 15 to June 8-9**	
E	3	16.8	54.0	28	48.6	+12.4	+1.5
F	2	23.0	88.3	234	42.3	+11.6	+22.3
G	2	27.8	100.1	257****	62.0	+7.7	+17.0
H	2	23.7	89.6	591	49.5	+6.8	+14.8
H	1	33.5	137.9	650	53.7	+8.2	+34.3
I	2	37.1	123.8	640****	50.7	Colony Removed	
I	1	44.1	129.7	644****	49.0	+6.8	+48.5
J	1	38.7	100.5	930	46.5	+8.6	+49.8

*New pollen was available after April 22.
**No pollen until March 28.
***Groups D, H, and I present data on individual colonies separate from the average results given under D, H, and I.
****No pollen until March 27.

FIGURE 2

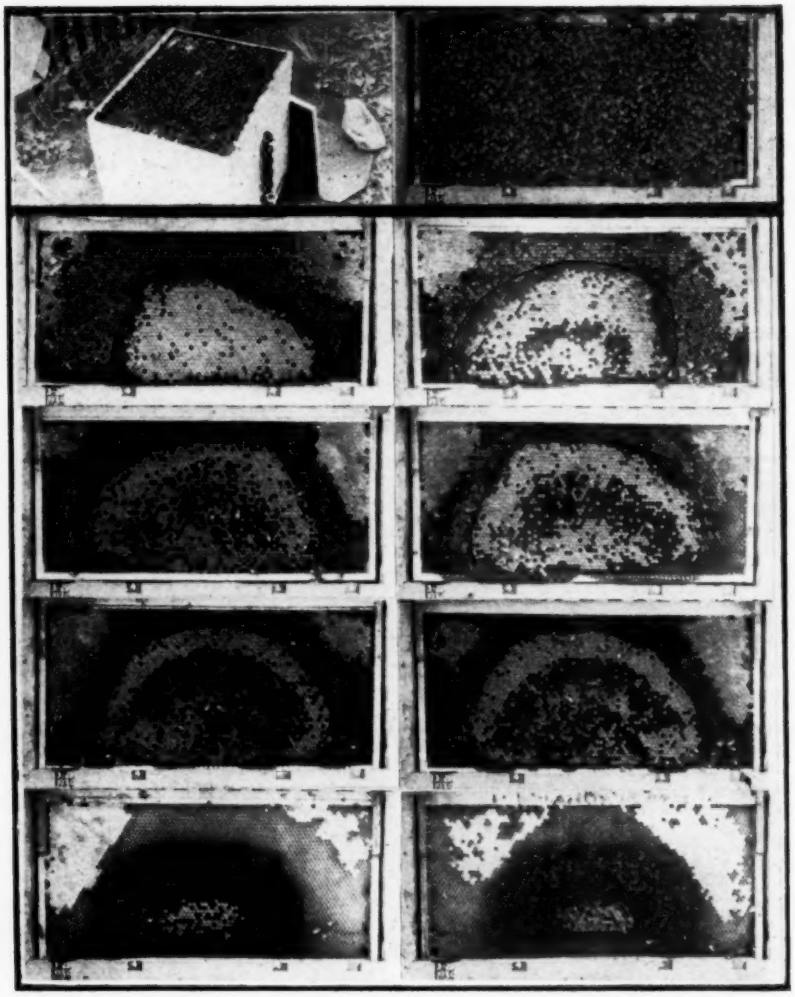


Colony 10. Fall pollen reserves neglible. This is the brood nest March 28, 1934.



Also colony 10, with 303 square inches of pollen added on March 28. Picture shows the great increase in the brood nest by April 10, 1934. Compare with Figure 1 and follow explanation in the text.

FIGURE 3



Colony 4. Fall pollen reserve 632 square inches. This is the brood nest on March 28, 1934. The upper two pictures show the top view of the cluster and the bees covering frame No. 6.

contain at the close of brood-rearing. Queenless colonies usually build up generous pollen reserves. Bees will not utilize scattered pollen in combs some distance to the side of or below the active brood nest.

Pollen reserves of 300, 600, or 1,000 square inches, depending upon the locality, may be considered equally as necessary as large clusters of young bees, vigorous queens, 60 to 70 pounds of honey of good quality, and adequate protection for insuring ideal wintering.

Table 2. Average effect of pollen reserves on surviving populations of overwintered colonies, 1934-35*

Group	Number of colonies	Spring Population Thousand bees	Spring Population Percent of fall bees	Reserve Pollen, square inches	Winter Losses, in pounds of honey	Gain or Loss Thousand bees	Gain or Loss Pounds of honey
Corthell Series:						**May 27-29 to June 21**	
A	5	13.3	38.7	45	59.9	—3.9	—3.7
B	1	13.8	44.8	187	62.4	+3.5	+1.1
C	4	25.3	68.1	470	64.0	+3.7	+18.5
Hatch Series:						**June 4-5 to 18-19**	
D	4	15.4	38.8	36	65.4	+5.6	—3.4
E	4	18.1	51.3	158	57.2	+6.9	+2.7
F	4	17.2	52.2	243	53.4	+4.9	+1.2
G	7	24.4	60.6	363	62.5	+5.8	+7.6

*New pollen available after May 21 to June 1; unsettled weather prevailed during the last week of May.

Salesmanship and Honey

By Whitman Coffey, Texas.

PREVIOUS to the depression in price of honey the main object was to teach the beekeeper to produce larger crops of honey. Government agencies and leaders in beekeeping worked to this end. In spite of the fact that the total quantity of honey produced in the United States annually has materially declined since 1929 (see government report), and in spite of the good work of the American Honey Institute, the average market price of honey has also declined since that time. Thus a new emphasis is placed on the marketing problem. No doubt the individual beekeeper will find that his particular marketing problem must be worked out according to locality. There are, roughly speaking, three channels through which his honey crop may be disposed, viz.:

(1) To the wholesaler or bottler.
(2) To the retailer.
(3) Direct to the consumer.
   a. Roadside market.
   b. Mail order.
   c. House to house.

Now the beekeeper who is too busy or does not have the aptitude to work up a market for his honey through the regular channels of trade or through the retail route will often find it to his advantage to sell to the wholesaler or bottler. The main disadvantage of this route is the price factor. The beekeeper is often blamed for this condition on account of the fact that he will often dump honey into the channels of trade at a low figure; and his own competition will ruin his opportunity to get a fair wholesale price. The beekeeper would then be well advised that he should either stay out of the channels of trade with his honey or he should be prepared to follow the ethics or practical policies of others who are in the honey marketing business; that is, he should figure his selling costs and try to realize a profit on his operations.

In the opinion of the writer more harm has been done to the honey market by beekeepers selling to the retail merchant than by any other one thing. Most beekeepers are at the mercy of the merchant for obvious reasons. Then there is the matter of pack. Many beekeepers cannot put out a suitable pack or will not grade their honey. The result of such conditions is that the market price of honey tends to be governed by the price of the lowest grade of honey or the cheapest honey offered. Where dozens of beekeepers are calling on a grocer each week, each with a dif-

ferent grade and price of honey, he becomes bewildered.

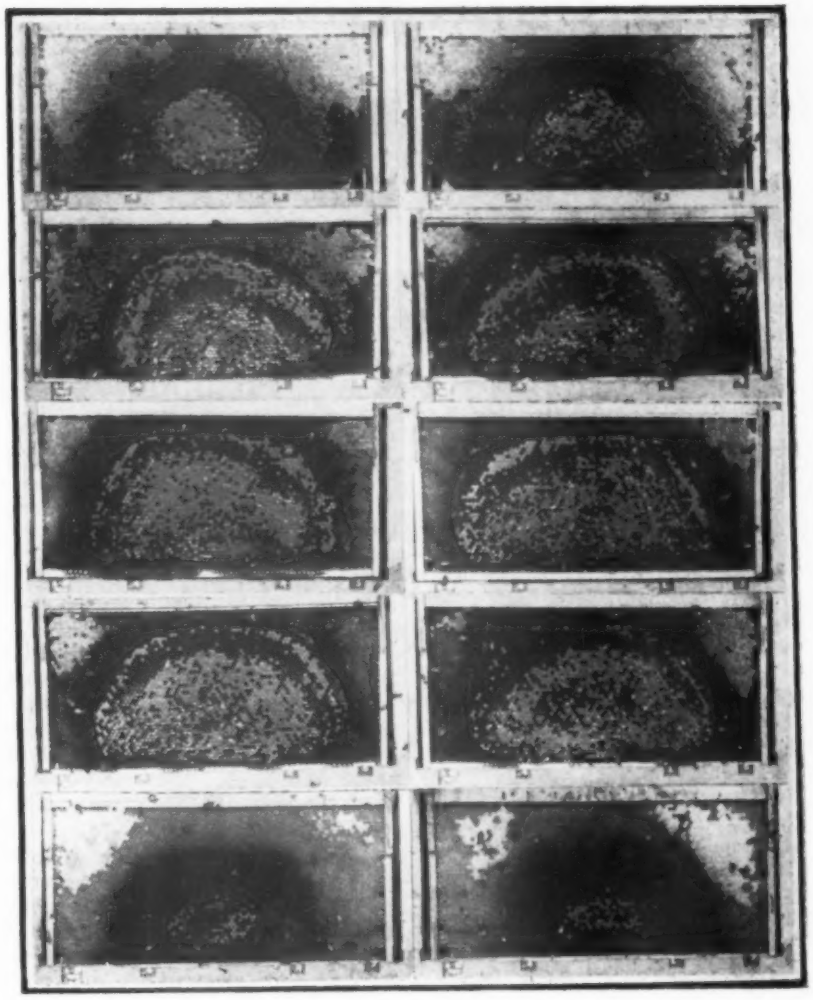
The beekeeper, under such circumstances, has not time, and usually not the training necessary to talk the good points of his honey; and furthermore, what is more important, he is not financially able to put on the advertising campaign necessary to get his honey to moving. The logical solution to such a condition is a cooperative packing plant, owned and controlled by a group of producers, not for profit on capital, but for the sole purpose of merchandising their honey crop. It is not the expense of such a plan that is in the way but only the indifference and distrust of beekeepers.

Now it has been pointed out that there are three dominant characteristics of the average business man: (1) He is very vain; (2) He is eager for profit; and (3) He will not take time to investigate a proposition. On approaching the buyer for a store it is well to know his name. To be able to call him by his name will give one an immediate advantage. It is also well to wear a smile. If you have a pack of honey which you are proud of (and certainly one would not want to have any other) you can tell him that his store has been selected as exclusive distributor of your honey in that particular town. Then emphasize the fact that the honey was produced locally or in that state if such is the case and let your talk lead up to the profit that can be made on your honey. Much has been made by some salesmen of the value of a check on stock before taking an order.

This is no doubt all right when you know your grocers well enough. Of course it should not be attempted immediately. Grocers will often depend on reliable salesmen to keep their stock up. If a grocer is willing to cooperate with you in an advertising campaign, perhaps the best method is to advertise in the local papers and furnish them feature articles for publication. Then printed booklets such as are furnished at small cost by the American Honey Institute can be furnished the grocer free of charge. It will often be found profitable to furnish show cases for honey.

One of the most practical ways of selling honey is at the roadside market. There are several reasons for this. One is that you meet the consumer face to face and one can sell him on the merits of honey. In the second place one gets more for his honey. In selling direct to the consumer one is in a position to point out the merits of honey and show that it is not just another sweet. In talking honey one can stress such things as flavor, mineral elements, alkaline reaction, predigested sugars, and favorable action on the body. Last year I had the good fortune to be in close touch with a good roadside market on a large highway that lead to the mountains. The producer in question sold his entire crop to tourists and truckers at a price considerably above the prevailing market price. Suitable signs were provided for the honey house and along the roads leading thereto. The beekeeper has here also an opportunity to feature honey baked goods and honey candy. It is sufficient to say that by a little show of enthusiasm and salesmanship a surprising volume of honey can be moved to the best advantage in this manner.

FIGURE 4



Colony 4. As in Figure 3, but showing the brood nest on April 10. (Fall pollen reserve 632 square inches.)

Where one is removed from potential markets by considerable distance the development of a mail order business with farmers and volume users of honey is of advantage. Under such circumstances advertising in farm papers is profitable.

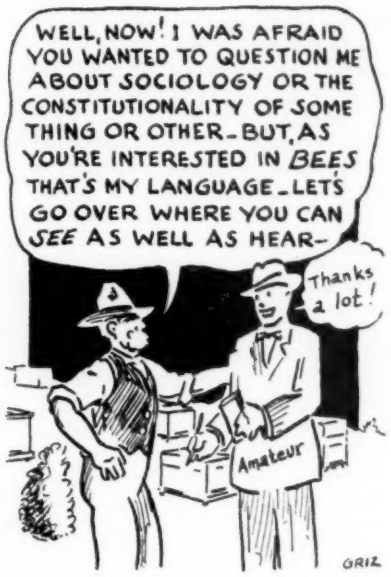
I am acquainted with a young man in a nearby town who devotes his spare time to peddling honey at a very good profit to himself. He will ordinarily carry some comb and extracted honey in jars. If a customer wants more than a pound or so it will be delivered later in a five or ten-pound pail.

As before stated the beekeeper should solve his selling problems with regard to local conditions. He ought to bear in mind that there is a real cost in producing honey, and try to realize a reasonable profit on the undertaking. In a situation where suitable leadership and cooperative spirit prevail a collective packing arrangement can be worked out together with suitable cooperation with American Honey Institute in advertising. In case of a sufficiently hostile or indifferent attitude on the part of retailers it may be necessary to establish suitable honey retailing stations at certain points.

The average grocer does not or will not talk honey. So long as we depend on someone who does not know anything about honey to sell it for us we are not likely to realize its full value. The present emphasis on natural foods as a means of restoring one to health affords an excellent opportunity for honey people everywhere to push honey.

All Around the Bee Yard

By G. H. Cale,
Illinois.


WELL, NOW! I WAS AFRAID YOU WANTED TO QUESTION ME ABOUT SOCIOLOGY OR THE CONSTITUTIONALITY OF SOME THING OR OTHER - BUT, AS YOU'RE INTERESTED IN BEES THAT'S MY LANGUAGE - LET'S GO OVER WHERE YOU CAN SEE AS WELL AS HEAR-
Thanks a lot!
Amateur
GRIZ

CHARLES DADANT was right. The seasons follow each other but they do **not** resemble each other.

— o —

I would like to compare 1936 to 1934, but it cannot be done. In the first place, the bees are in a different place. In keeping with this modern game of checkers, they are about 400 miles away from the 1934 location. Although we are in one of the worst drought zones in the Middle West, and in one of the worst heat waves man, as we know him, has ever experienced in this temperate country, it is so different from the torrid 1934.

That year the bees would gather honey in spite of adverse conditions, with honey plants drying out and heat reaching 120 or better. They did it, however, in the early morning and evening.

In 1936, the dry period came later in the season, more toward the close of the bloom of the honey plants so the whole honey producing program staged a let-down leaving a serious question about whether we have a crop, or whether we only have half a one.

Further to the East, with rainfall more occasional, there are locations reporting excellent honey conditions in spite of the unseasonable warmth and drought.

— o —

There may be some satisfaction in the effect on honey prices. With a greater scarcity of honey than was anticipated earlier in the season, the initial prices for honey should be much better than those of last year, and the winter prices should be at least a cent above those of 1935.

— o —

Did you ever see a queen take a play flight? I have. A package of bees was hived at our shop yard early in the morning, and just after dinner there was apparently a swarm in the air, all over the place, having a delightful time. It was beyond the swarming season and hard to explain until it was discovered that one of the packages had left the hive for an orgy of flight. After the play was over, they came back obediently to their new home, the queen among them.

Under some circumstances, I suppose this would have been what we call absconding in that the return would have been to the wrong hive. In this case, they succeeded in finding the right front door and if I had not happened along at the time nothing would have been known about it.

— o —

To live in the bee yard would be to discover many things of interest like this, which happen during our absence. I believe that queens frequently take more than one mating flight. George King, at the University of Illinois, had some evidence from a laboratory basis that this occurs. In instrumental insemination work, fertilization of the queen is seldom accomplished in one operation.

It is quite likely also because of the vast difference in the suitability of drones that nature herself is not able to bring about perfect fertility in one mating flight. There is probably something in this to do with frequent supersedure. Supersedure may take place a number of times a year, or a perfectly fertilized queen may last several seasons.

On examining queens this year, several were noticed marked with red enamel in 1931 and still laying well, in fact most of them laying better than queens introduced last season. Of course, these few queens left from that year, not having been superseded or replaced in requeening operations, represent the select queens among all those introduced at that time.

Marking queens makes it possible to select those that have the longest life and the greatest fertility. Among them should come our best breeders.

— o —

This will be another year when the honey in extracting will be like taffy and it will be easy to break new combs. Honey being stored in the supers is apt to fool us too. A small amount of thin honey occupies a lot of space. A small amount of thick honey may occupy only a little space and yet our total crop may be greater than when the honey is thin to begin with.

— o —

We still like the articles on "Honey Getting" by Sechrist. They seem to be fundamental. Some of our own practices have been unconsciously developed as he suggests in his analysis and now we see how they fit in a well planned system of honey producing operations. It is well to sit back and study things like this every so often to know where we are. Those interested in the fundamentals of beekeeping practice should keep these articles by them and study them over several times.

— o —

Dr. Miller's spring management plan, which we reprinted in the Journal for December, came in mighty handy this spring. Read it over again. Dr. Miller says "when we have a lot of weaklings on hand in the spring (and we did have a lot of weaklings after last winter), the right plan is to begin by strengthening those that are already the strongest."

That is exactly what we did this year and it is certainly the best way. "Always help first those that need the

help least," says Dr. Miller, "leaving the weakest to be helped last. In drawing from the strong to help the weak, never reduce a strong colony to less than four frames of brood. With these two rules constantly kept in mind, there should be hardly any danger of making mistakes."

Right he was, exactly right. And it shows what a live man the good Doctor was.

— o —

This spring, the package boys came to the rescue again. How much better it is now than it used to be in the old days, when, if winter losses were bad, there was no way to get back the numbers except to build up slowly. Now, we can get the bees down South as we want them. If the southern boys will give a little more attention to what we need up here in quality of queens, instead of selecting their stock for mere prolificness, we can get along fine together and each of us prosper.

— o —

Once again package bees, coming early, made a better showing than colonies wintering through the terrific northern winter of this season. There are individual over-wintered colonies that have done much better than the packages; but, on the whole, the packages are pretty even in the number of supers they are filling, while the over-wintered colonies vary all the way from one or two supers to six or seven. The total crop will not be any better for the wintered colonies and in some yards the packages will win.

— o —

What we know about queens isn't much. The copy books teach only what is certain and part of that is wrong. We have seen many cases of plurality of queens in fall requeening and in making spring and summer divides. Often, even in spring, **there are three queens in a single hive.**

— o —

It is 108 today, August 15. Interior Morocco is described as a dry hot country in north Africa where the temperature often stands between 105 and 120. It's been that here this summer several periods. Everybody in the Mid-West knows all about it. Morocco has nothing on us.

Bees can't stand these conditions. When they fly they die. Colonies are small and queens can't maintain populations. Naturally, the best queens do the best, as they always do under trying conditions. Doolittle was right. "The queen is the soul of the colony."

— o —

Changes in seasons, in bloom acreages, and in agricultural practices make migratory beekeeping a modern necessity but I don't like the job of moving full colonies of bees long distances. Some way must be found to make the shifts without the grief and disheartening labor now required. How are we going to go about it?

It seems to me that migratory honey production offers a chance to increase the per colony production to such a degree that fewer bees can be managed for satisfactory returns. Perhaps that is part of the way out. With large outfits, most of the migrators sooner or later get into trouble and quit in disgust.

—ABJ—

The Canadian Honey Industry

This is taken from "Canada Week By Week," a news letter of Canadian events issued by the Canadian Government, at Ottawa:

"Canada may be called a 'land of honey' having a wealth of nectar and pollen-producing plants. Beekeeping is carried on in all provinces, and honey production in 1935 amounted to 24,284,400 pounds, a slight gain over 1934. During the last five years Canada's honey production has increased by more than 30 per cent.

"Canada's honey industry enjoyed its greatest growth during the ten-year period, 1920 to 1930, the number of colonies increasing from 185,-530 to 279,453 and honey production from 6,370,300 pounds to 18,-459,962 pounds. In 1920 the average per colony yield was about 34 pounds and by 1930 it had risen to 66.

"The most notable development was the great increase in the production of honey in Western Canada. During 1920, Ontario and Quebec produced nearly 95 per cent of Canada's honey, while the Prairie Provinces—Manitoba, Saskatchewan and Alberta—accounted for only two per cent. Ten years later the Prairie Provinces produced 16 per cent."

—ABJ—

Humming Birds Battle Over Honey

Birds know what's good and will even do battle over it. These two little birds didn't like each other any way, and they certainly would not share honey.

A young woman in Colorado had two little humming birds as almost constant visitors in her garden from the beginning of the season. One was bronze and the other a peacock blue. She named them Brownie and Peewee. Under one of the windows she had planted nasturtiums of the climbing variety. These large red blossoms proved to be the favorite flowers of these little feathered folk.

However, Brownie and Peewee didn't seem to get on well. There were flower cups of nectar enough for both of them. Yet they invariably seemed to want what the other had. Many short skirmishes took place between the birds They would fly at each other, scolding and stab mercilessly with their long, sharp bills.

Somewhere this young lady had heard that a humming bird would eat honey from the hand if one sat quite still She wanted to try the experiment. So the next time she observed the birds in the garden she filled a small glass with honey and going to the garden waited to see what would happen, sitting very still.

Brownie after a time buzzed around timidly at a safe distance from the honey. Then becoming bolder, he made a quick dash at the glass and took a sip. It was a little while before he gained courage to actually poise over the glass, but he finally did so.

Then down came Peewee like a miniature whirlwind. He noted the honey in the glass and how Brownie was enjoying himself and flew at the glass. The battle started! They screamed and stabbed and flew around in circles, charging at each other. Soon there was blood on Peewee's blue breast. Alarmed, lest they kill each other she retreated with the honey thus stopping the jealous fighters.

Benj. Nielsen,
Nebraska.

—ABJ—

A Day in the Fields

Rousing from sleep when the first beams of morning

Sift through the treetops on beehive and sill,

Bees without number go winging and humming,

Up through the orchard and over the hill.

Gathering propolis, water and pollen,

Haunting the meadows and blossomy bowers,

Bartering gold for the glittering nectar

Jealously guarded by virginal flowers.

Laden with plunder now see them returning—

Bold buccaneers of the flowering spray;

Carefully lighting each stores up its treasure—

Daintily poises—then up and away.

—Florence Holt Davison,
Missouri.

The Amusing Adventures of Flighty

Flighty's periscope picture. It is not Flighty. Who is it?

Flighty Attends a Bee Meeting

July first.

HELLO folks! Yes sir, we made the grade all right. We pulled into location here on Walloon Lake, weary, shaken up, and with my nice brown shoes all muddy. But, Mr. Pellett, you can imagine how happy we were to get home!

By the way, J. A. Roamer, I think you still have the edge on me. You have a one seated chariot, I have only the trailer. While I don't always go in the direction I intend, my means of travel is the last word in economy. I have only to pull my trailer onto the highway and thumb a hitch on someone's means of locomotion. So far it has worked, while the chances of finding cars with trailer attachments are getting better, we once had to hitch behind an ox team. If riding around in your gas-drinker at breakneck speed gets monotonous, just try an ox-cart ride.

— o —

Well, when we got settled here we made the forty-five mile trip to our honey house in Central Lake for supplies. Back of the honey house sat a lone hive that I had been forced to leave unprepared for the winter when I settled myself for a long stay in Detroit. There it stood, two stories high, no packing and with full entrance.

"Red," I said to my partner, "might as well kick that hive apart and load it on."

Red did kick it, and out came a thousand bees asking what it was all about. We loaded onto the trailer one of the strongest wintered hives I have ever seen. All spring that hive was way ahead of any packages, but today—it is not quite up to par with our shipped bees. It seems to lack the "zip" we like to see in a colony.

— o —

Our packages arrived on the 23rd of April and we installed in the orthodox manner and lost in a week or two, the usual amount by supersedure, about twenty-five per cent. These were two-pound packages and perhaps we erred by not ordering an additional pound per colony to add in a week's time as suggested by G. G. Puett some time ago in this Journal.

Then we read about "dunking" bees and believed here was the answer to early organization of the package. So we ordered three-pound packages to refill our empty hives, planning to "dunk."

— o —

We got up early on the 21st of May to attend the District Five meeting of beekeepers. We made about the entire one hundred miles by detour. If you don't think a wet clay road is heavy, just try to lift one.

Flighty finds the two-story hive is just right for a seat.

The program called for assembly at the court house in Traverse City, but when we finally found it, there was no one there, not even the judge. The meeting was to be one of those famous Traverse Cherry Blossom tours, broken up by visits to apiaries and accompanying speeches. Another look at our program assured us we had better hurry to the next meeting place, the Frank Slusher Farm, just past the Hospital for the Insane.

We chanced it and began to think just passing the hospital had affected us. For a half-mile before you get to Frank's place, his buildings appear to be on the left side of the road. One can not see until right at the farm gate that the road cuts sharply to the left there and puts everything on the right. Red almost had to resort to "konking" me on the head to get back to the city later. I wanted to go the other way.

— o —

We broke in on the most informal and enjoyable meeting I ever attended. Can you imagine it, there, sprawled out on the grass under a big old apple tree, stretched such dignitaries as Professor Kelty, A. G. Woodman, Ralph Blackman, Jay Cowan, Don Barrett, Jim Hilbert and others. I poised my camera and tried to get a picture of one particular tall character but he kept on the move, and in undesirable poses. Red sprawled on the ground with the rest, but not me, I'm too old for that type of relaxation—and I'm not the only one.

Jim Hilbert called the roll-call by having each one introduce himself with a few remarks. This was a swell idea. From the comments it didn't seem to matter how many bees you had, but how well you kept them.

— o —

Ordinarily it is hard to catch a strange name, especially one like, Lester Kouchnorkavish, but when he

introduced himself as the gentleman with the longest name, it sort of stuck. From the looks of the start he has made in beekeeping, we might just as well learn to spell it. We are going to hear a lot more of it.

— o —

Which all reminds me, I was introduced to a young beekeeper just before the meeting, who lives over our way.

"The name?" I asked.

"Fineout."

"What to heck do you think I'm trying to do?" I parried.

— o —

Don Barrett, state apiary inspector, gave us some interesting and encouraging statistics on the progress his department is making both in inspection and appropriations. Gee—I don't see how any beekeeper can afford to miss these meetings!

— o —

The discussion swung to the new state bonded label agreement. This is an agreement whereby the packer of honey or any farm product pays the department of agriculture one dollar registration, and files a $500 bond, that says he is packing his goods according to department rulings.

Honey takes the same grading as the suggested U. S. Standards. Bond labels are used, costing $4.50 a thousand; blue for fancy grade, yellow for No. 1. Registrations and funds from label seals are used in part toward advertising Michigan Bonded Farm produce. We went on record as recommending that color grading also be shown, not so much as to price preference as to let the customer know what is inside the pail. So often the clerk doesn't know the color, and, as one member remarked, "a five-pound pail can cover a multitude of sins."

— o —

The main topic seemed to be package bees, and introduction. Boy, oh boy, Cale, that was right up our alley! It had cost us two dollars to make the trip but it was worth a hundred times that. (Don't tell Professor Wilson, he will bill me for the $198 for the A.H.I.)

— o —

We heard of the big loss many were taking on supersedure. We don't glory in another man's defeat but it was encouraging to know we weren't the only losers. We also heard a lot about "dunking." I was just getting set to snap that picture I had been trying to take, when "Beeware" Woodman (who isn't a boy any more) got up off the grass and came over to sit by me.

"I don't wholly approve of this dunking," I said. "Seems pretty messy."

"Let me tell you how we do it," he replied, "we take a mason jar with a sprinkler top and saturate the bees through the screen, then rip the screen side right out and the bees roll into the hive like so many beans."

"Sounds good," I admitted, "but how about the queen? We don't like to disturb the cluster to see if she is released, and too often to release her."

"We put the queen cage, screen side up, just inside the reduced entrance. We can pull it out at anytime to examine it, without disturbing the bees."

After the noon lunch in town, we were conducted through many apiaries and looked into many hives. Most of the boys wore bee veils, except Jay Cowan. He had pretty good luck when he was the only one in the yard, but when the army walked in, the bees singled out Jay.

The amount of brood in the hives of 1936 packages encouraged us, we thought ours were lagging too much. The large number of Modified Dadant hives in the several yards interested us. They certainly are becoming popular with beekeepers who know what is best.

— o —

By the time we had reached the Kouchnorkavish farm, I was getting tired of trying to get my picture of that long dignitary, so-o-o, I pulled a fast one. When the group pulled around the corner of the buildings and headed for Lester's hives under some fruit trees, I just hung back and no one missed me. Then I vaulted into the barn and found just what I wanted, a long length of eave-pipe. It didn't take me long to knock holes in opposite sides near the opposite end, and insert broken pieces of mirror. Presto—I had a periscope.

Then balancing myself on a car bumper I hoisted my contraption up the side of the honey house, just over the top, and got my picture. Not so hot, but I bet some of you guys don't guess more than once!

— o —

Several beemen told us of the success they were having receiving dry packages, both by truck and by express. That's something we are going to try too. Hilbert reported good success with dry packages Ira Bartlett had brought up for him. Some on the tail-end of the load appeared frozen, but Jim said eight hours in the honey house and they came to activity and were okeh.

— o —

Our three-pound packages arrived on May 25th, and we installed them as suggested by Woodman; that is, all but one. This one we followed the same procedure but placed the queen cage on top of the frames. When we returned in two hours to replace the removed combs (four), the bees had settled into a cluster and we released the queen directly onto the combs. At our first disturbance of the hive ten days later, it had more eggs than the others, and was going strong.

— o —

June first we went around adding the second story for brood room, and did that please me. The single hive bodies were too low for me to sit on, these two-story ones are just right. But they'll spoil that in a few days, putting more supers on. So I'll find another seat. It'll take more than that to keep me out of the yard. Never let it be said I held down a hive all summer by sitting on it.

— o —

Mrs. Flighty was just in to see if I was all right (so she says). I told her I was going to talk with bees next year.

"Flighty," she said, "you're getting balmy. Bees can't talk."

Well, you should have seen her face when I showed her an ad in the Journal for bees that speak for themselves! (Sort of a sympathetic look.)

"Really though, Flighty, you do dream too much," she admonished.

Then I told her the dream I had the previous night. St. Peter challenged me at the gate. "Who goes there?"

" 'Tis I, Flighty, apiary inspection number 11,976, Bonded producer number 3,768."

"Hmm, another beekeeper," he pondered, "wonder how they get up here."

The Mrs. admits it **must** have been a dream!

— o —

What a feeling, Maurice! People asking for honey before the crop is off! Ought to be quite a rush, but at what price?

In Detroit last winter five-pound pails were 69c, but here in Petoskey, 49c, the same as the low 1932 price. Somebody isn't reading market reports.

Now I hear of a beekeeper (?) who has peddled five-pound pails to farm houses for the last three years at 35c. Good honey too. I must close, get his address, and buy his crop.

What a profit, with honey promising to be around eight cents wholesale!

—Flighty.

—ABJ—

Harsh Punishment

"Marcus, an old man in the reign of Constantine, overthrew an Idol Temple, and was . . . first scourged on his naked body, and after other punishments, in the last place put in a basket, being all over anointed with hony, and so set abroad, whom the Bees (thinking he had robbed them), stung therefore to death." — From Samuel Purchas. (W. H. Hull, Virginia.)

Beekeeping Exhibits at First International Horticultural Exposition —September 12-20.

Competition for bee and honey exhibits will be included on the prize lists of the first International Horticultural Exposition, to be held September 12 to 20 in the International Amphitheater at the Chicago Stock Yards.

According to the management, five competitive classes have been listed in this department, with six cash awards in each. One consists of a contest for 24-pounds of light extracted honey in one-pound tall glass containers; another for 12-pounds of bulk comb honey in one-pound tall glass containers; a third for six sections of light comb honey, cellophane wrapped; a fourth for one frame observation hives of bees and queen, any breed; and a window display contest of most value for advertising honey and wax, space limited to seven by seven feet. Entries for the window display close September 8.

The International Horticultural Exposition, which is planned as an annual event, is the first show devoted exclusively to horticulture on an international basis that has ever been held in America. Over $16,000 are being offered in prizes, while the total awards for the entire show number 6,022.

The premium list, giving the details of each contest, including prizes offered, is now available to those who address requests to the Exposition headquarters at the Chicago Stock Yards. Competitive and commercial displays will occupy the largest part of the International Amphitheater's seven acres of exhibit space.

Heading the spectacular features of the show will be a reproduction of the famed Hanging Gardens of Babylon, built by Nebuchadnezzar II for his Median queen Amyitis, when she became homesick for the hills and forests of her native Persia. In attempting to bring the trees and hills to his wife, Nebuchadnezzar built one of the world's seven wonders.

The replica, now nearing completion in the International Amphitheater, will be the central exhibit of the main arena. A lagoon and fountains will occupy the approach to the Hanging Gardens, and on either side will be various arrangements of formal gardens.

The executive committee which will have charge of staging the Exposition is composed of the following:

Dr. J. C. Blair, head of the horticultural department at the University of Illinois, chairman; August Koch, chief horticulturist of the Chicago Park District, vice-chairman; B. S. Pickett, president of the American Pomological Society and head of the Iowa State College horticultural department; A. G. Korsgard, district forester of the Cook County Forest Preserve; James Sykora, Society of American Florists; G. C. Wieland, president Commercial Florists Association of Chicago; Charles Fiore, Illinois Landscape Association; O. V. Morgan, past president of the Men's Garden Club of America; and John F. Wenke, secretary Illinois State Vegetable Growers Association.

Enthusiastic comments have been pouring in from hundreds of leading horticulturists in this country and Canada, demonstrating the tremendous interest that has been aroused by the Exposition in advance of its opening.

— o —

Tulsa Four State Fair September 19-26

$750.00 will be offered in the bee and honey classes at the Tulsaa Four State Fair at Tulsa, Oklahoma, September 19 to 26 according to H. E. Bridges, secretary-manager. Exhibits will feature methods of defeating drought, insect plagues and other enemies of the farmer and stockman with the county agents, state A. & M. College, Federal Government cooperating. A total of $18,000 will be offered in premiums in all classes of exhibits. Lists may be obtained by writing P. O. Box 2386, Tulsa, Oklahoma.

Leslie Brooks,
Publicity Department.

— o —

Michigan State Fair Bee and Honey Exhibit September 4-13, Detroit

This year the State Fair Board has doubled the premiums offered for bees, honey, beeswax and baked goods, and has made it possible for Miss Mercedes Cranston of American Honey Institute to give daily demonstrations of uses for honey. Also, substantial prizes are offered for honey baked goods. Premiums are this year offered for displays of honey under the Michigan Department of Agriculture's bonded label.

Competition is open to all Michigan beekeepers. Entries for space should be made immediately so that the management may know how much space the exhibits will require.

Russell H. Kelty,
Secretary.

— o —

Georgia Annual, September 16-17

The annual meeting of the Georgia Beekeepers' Association will be held at Tifton, Georgia, on September 16 and 17. We invite traveling beekeepers as well as those of the neighboring states to our meeting.

C. P. Smith,
Secretary-Treasurer.

— o —

A Report of the Iowa Summer Meeting

One of the best bee meetings Iowa ever had was held at the Pellett Gardens, Atlantic, Iowa. There were over 250 people from seven different states.

Those present were told of the history of the disease resistant experiment by Dr. Park of the College. Several colonies definitely show an ability to clean up disease. These were taken to Texas the past winter and from them queens reared and brought back to be built up into colonies and their combs inoculated to see if the daughters of the first generation will also show an ability to overcome disease. There will be a report of this later.

Miss Goodman of American Honey Institute pointed out that while Iowa ranks fifth in honey production, there were only 25 on the Honor Roll and that the honey contributed amounted to only 0.08 of one cent for each 60-pound can of honey produced in Iowa. She made an appeal for support from Iowa for the Institute.

Robert Clark of Mitchellville:—The use of honeybees in orchards for pollination is a form of crop insurance as necessary as any other insurance. There will be a wonderful crop of Delicious apples in Iowa this year which is probably due largely to honeybee pollination. One colony of bees per acre is enough; if more bees are used, it is possible to overwork a location and cause blight.

Dr. Jas. I. Hambleton of Washington:—A review of the history of American foulbrood and its control up to the present. Even with good methods of inspection and burning, it is impossible to keep infection below 1 or 2 per cent. The cost to the state is just as much as though infection were 10 per cent.

The reason larvae of the honeybee die from this disease is due to the

lowering of the concentration of sugar in the larvae. The bacteria will not live in a medium which has a high sugar content. In a study of disease resistance, it may be necessary to include the variation of sugar content of bee larvae.

Investigating the effect of various treatments such as formalin and chlorine on the spores of American Foulbrood, it was found that in the chlorine treatment some of the spores were inhibited in growth, but that after washing they grew at once. In a bee yard combs treated with chlorine contain scales which when loosened and removed and washed by a rain again become a source of infection. It was only after thirty days that they could definitely tell whether a spore of foulbrood would survive the chlorine treatment or not.

Robber bees are not considered an important source of distribution of foulbrood. Probably the beekeeper himself is the chief agent in the spread of this disease.

Package bees are also claimed to be agents of spread of American foulbrood but Dr. Sturdevant working with packages made from diseased colonies shipped north and placed on foundation, showed that one colony acquired foulbrood when on foundation while none of them placed on combs showed any. This is a paradox, of course, but it does show that the package bees are not a vital source of spread of foulbrood. Probably the recommendation to burn diseased frames and combs is a good one but in cleaning the equipment, it is only necessary to wash the parts with a brush in good lye or soap water. It is less harmful to the equipment and just as satisfactory.

Under an appropriation of $7,500, a cooperative experiment is being established between the Department of Agriculture, the Field Stations at Baton Rouge, Laramie, and the University of Wisconsin and between the Iowa State College and the Texas State College to carry on the resistance experiment in a more comprehensive manner.

In general, Texas will rear queens and act as a store house for stock, Iowa will test stock produced, the Laramie station will work on methods of inoculation and bacteriological studies and Wisconsin on genetics. With this setup, it is hoped that if a resistant strain is found, something profitable may be done with it which will overcome our problems.

Dr. Drake, State Entomologist of Iowa:—Grasshoppers are doing considerable damage to honey plants in Iowa. In at least fourteen counties 75 per cent of the new clover seedlings have been killed by grasshoppers and by drought.

The Wisconsin Summer Meetings

At the Wisconsin meeting—Edward Hassinger, A. E. Wolkow, Editor Deyell, H. F. Wilson, M. G. Dadant, H. J. Rhamlow, and L. C. Dadant (start left).

THE writer had the opportunity and the pleasure of attending the three Wisconsin meetings held respectively at Ripon, Viroqua and Menomonie on July 24, 25 and 26.

While the drought has been severe everywhere, beekeepers attended the meeting in numbers.

The Ripon meeting was held at the home apiary and apiary house of Mr. and Mrs. Arthur J. Schultz. Some 150 beekeepers were there. They enjoyed seeing the high stacked hives in Mr. Schultz's yards, the well kept and thoroughly designed honey house and packing plant, and the wonderful lunch that was served at noon.

The program consisted of talks by M. J. Deyell, H. F. Wilson, C. W. Chambers, State Apiary Inspector, L. C. Dadant, M. G. Dadant and the American Honey Institute force consisting of Miss Goodman, Miss Cranston and Mrs. Jensen, the three alternating at the different meetings.

The second meeting was held at the apiary of Newton Boggs in Viroqua, Wisconsin, some 75 being present, the official meeting being preceded by a noon day luncheon.

The same list of speakers were at this meeting as at Ripon and continued on through the meeting at Menomonie, which was held on Sunday.

Wisconsin folks, listening to Miss Goodman of American Honey Institute.

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Menomonie has some one hundred twenty-five present going in the morning to the apiary and extracting house of S. P. Elliott who had just the day previous trucked some 100 of his colonies 115 miles north to get into the fireweed flow.

One thing that impressed itself upon the writer is that the system of beekeeping is changing. Like Mr. Elliott, practically all of the larger beekeepers are anticipating in order to get results the current season instead of being discouraged with the drought in their present locations.

This means that the possibility of a honeyflow every year is stabilized through judicious moving of the bees.

Another thing which was surely in evidence is that sweet clover is gradually expanding its areas until it is having a very decided influence upon the honey crop in practically all sections and this is particularly true in Wisconsin.

While the drought was dwelt upon and evidently was serious in all Wisconsin areas, after leaving western Illinois, Wisconsin looked green in comparison. The worst drought stricken areas were, of course, the southern tiers of Wisconsin counties.

While the crop will not be very satisfactory, still beekeepers are not discouraged. Reports were given of offers on honey which remained about ½ cent to 1 cent per pound advanced over last year.

The Wisconsin Association set-up consists of a State Association with headquarters at Madison. H. J. Rahmlow is the secretary. He is also secretary of the Wisconsin Horticultural Society and editor of the magazine "Wisconsin Horticulture & Beekeeping." Mr. A. E. Wolkow is president of the state association.

The three meetings just held represented affiliated groups, the Fox River Valley district of which Edw. Hassinger, Jr., is president; the southwest district of which N. E. France is president and Newton Boggs, vice president; and the western district with S. P. Elliott as president.

—ABJ—

A Great Midwest Meeting

The Second Annual Wabash Valley Roundup, Newport, Ind., Saturday, September 12.

THE second annual Wabash Valley Roundup at Newport, Indiana, with L. R. Stewart as host, will occur this year September 12th. It has developed one of the biggest summer meetings of beekeepers in the Mid-West.

Lee Roy Stewart of Newport is the guiding genius of this event. It was conceived by him and has been held at his model apiary at Newport both times. This year September 12. The program, a printed copy of which we have at hand, promises a wonderful time. There will be a honey contest open to the world with entries of comb honey, 24 sections standard size 4¼x4¼x1⅞, extracted honey 12 16-ounce jars. Contestant does not have to be present (but he better be!).

Prizes as follows — White comb honey, 500 sections donated by A. J. Thomas, C. M. Scott Hardware Company, Indianapolis; 200 sections, G. B. Lewis Company, Watertown; 100 comb honey wrappers, C. W. Aeppler, Wisconsin; Comb honey amber, 10 Italian queens by Stover Apiaries; 200 sections by G. B. Lewis Company; 100 sections by W. H. Starrett of the A. I. Root Company, Indianapolis. Extracted honey white, one gross honey jars complete donated by C. W. Aeppler; 5 Italian queens by Calvert Apiaries; 10 wired frames by

L. R. Stewart, host.

A. E. Wolkow at Hartford, Wisconsin. Extracted honey amber, one gross honey jars complete donated by C. W. Aeppler Co.; 5 Italian queens by Herman McConnell, Robinson, Ill.; 10 sheets of Root's Three-Ply Foundation by W. H. Starrett of A. I. Root Company, Indianapolis.

There will also be a Honey, Fruit and Nut Bread Contest open to the world. Written recipes must accompany each entry. Individual may make as many entries as desirable. All honey must be used as a source of sweetening. The bread must contain fruits and nuts. Only quick

breads and not yeast types included. Weight should average one pound.

This was changed from the original plan of a cake contest since it gives everyone an equal chance and will be good practice for the Third National Honey Cookery Contest. Recipes may be obtained from American Honey Institute or your beekeeper.

The prizes for the honey, fruit and nut bread contest are 1st, one barrel White Lily flour by Robinson Mills of Indiana; 2nd, one-half barrell of Nickle Plate flour by the Cayuga Milling Company of Indiana; 3rd, one pair of Art Candles donated by the A. I. Root Company of Indianapolis; 4th, one pair of silk hose donated by Foos's Department Store of Newport; 5th, one box face powder donated by Winter's Drug Store of Newport. Judges are to be Malitta F. Jensen, American Honey Institute; Miss Aneta Beadle, Purdue University; Irene Duax, Secretary Illinois Honey Foundation.

Each program will carry a serial number, 5,000 programs are being distributed and the duplicate numbers will be deposited in a sealed box on the day of the meeting. Three numbers will be drawn from the box. The party holding the program with the number that corresponds to the first number drawn will be donated enough gas by the S & W Motor Company of Newport to bring them to Newport and take them home. The second number drawn Bishop's Filling Station of Newport will donate enough gas to make the round trip; and H. T. Payne's Filling Station will give 5 gallons to the third number. In no instance will a winner receive less than 5 gallons. There will be no blanks. Drawings will be made until someone wins. You must have the program that corresponds to the number drawn.

Remember, this meet will be held rain or shine. Plenty of room inside for everybody and everything. There will be practical demonstrations. Mr. Starkey of Indiana is demonstrating queen introduction with explanations. Cale of Dadant & Sons is demonstrating the use of carbolic acid for the removal of honey which honey will in turn be extracted by Mr. Woodman in a power radial extractor with every modern equipment. Bulk comb honey will be put up in honey hunks by Mr. Hilbert of Michigan who leads in this style of honey production.

Newport is but a short distance from two of Indiana's famous parks. Turkey Run and The Shades. The program will be especially interesting and includes Prof. B. Elwood Montgomery of Purdue University, "Anatomy of the Honeybee;" Dr. Milum of the University of Illinois,

honey jars

new

"Exceline Jars"... range in size from ½ pound to 4 pounds.

"Tall Cylinder Jars"... range in size from 1¾ oz. (individual service) to 3 pounds.

"Skyline Jars"... range in size from ½ pound to 4 pounds.

"Beehive Jars"... range in size from ½ pound to 2 pounds.

Hazel-Atlas offers a wide list of containers for the honey packer—the Tall Cylinder, the Skyline, the Beehive—and now the new Exceline Jars. All easily packed and labeled. Write for free samples.

HAZEL-ATLAS GLASS CO.

WHEELING, W. VA.

QUEENS ITALIAN CAUCASIAN

:: Quality :: Service ::

Give us a trial and be convinced. We practice the Golden Rule.

Select Laying Queen, 50c each

Italians or Caucasians. 15% discount allowed to dealers.

WEAVER APIARIES ❖ NAVASOTA, TEXAS

Agents for Pinard Nailless Queen Cage.

IF WE GET TOGETHER

You Will Save Money

Note these prices

ULTRA VIOLET RAY TREATED QUEENS

Requeen now for a big crop next season. Produce gentler bees, more prolific queen.

1 to 9	75c each
10 to 24	70c each
25 to 74	65c each
75 to 100	60c each

HONEY

We buy white and amber extracted honey, also Fancy White comb honey.

BEESWAX

We render wax from your old comb at reasonable prices. We work your wax into comb foundation.

HONEY PAILS & CANS	lots of 50	lots of 100
5 lb. Friction Top Pails	$3.15	$6.30
10 lb. Friction Top Pails	4.65	9.30
2½ lb. Friction Top Pails (100 lots only)		5.00
60 lb. New Cans, bulk, lots of 50 or more		.30 each
60 lb. New Cans, bulk, less than 50		.32 each

HONEY JARS	
16 oz. Modernistic Jars, pkd. 2 doz.	$ .85 case
48 oz. Modernistic Jars, pkd. 1 doz.	.85 case
32 oz. Modernistic Jars, pkd. 1 doz.	.80 case
6½ oz. Modernistic Jars, pkd. 2 doz.	.70 case
4 oz. Tumblers, pkd. 2 doz.	.40 case

CORRUGATED SHIPPING CASES (for comb honey)
Holds 24 sections—sizes 4¼x4¼x1⅞ or 4x5x1⅞
Lots of 10 or more—25c each.

CELLOPHANE WRAPPERS (for comb honey) Beautiful 3-color.

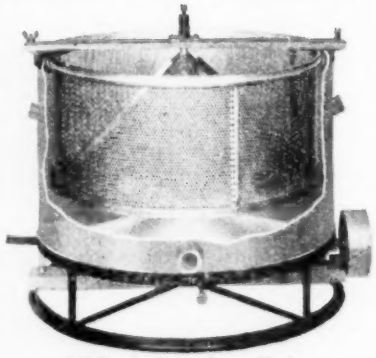
For 4¼x4¼x1⅞ Section	$1.00 per 100	$4.50 per 500
For 4¼x4¼x1½ Section	1.00 per 100	4.50 per 500
For 4x5x1⅞ Section	1.10 per 100	5.00 per 500

Paste—65c per quart.

Write for our general price list.

The FRED W. MUTH CO. Pearl and Walnut Streets Cincinnati, Ohio

The "Whirl Dry" Cappings Drier



37-Inch Cappings Drier

will soon pay for itself by reducing the amount of honey that goes through the melter.

Cut the cappings off as thick as you like; the honey from them will be as good as that which comes from the extractor.

37 or 50 inch sizes, all ball bearings. Made only by

S. P. Hodgson & Sons

NEW WESTMINSTER, BRITISH COLUMBIA, CANADA

BETTER BRED QUEENS :: 3-BANDED ITALIANS

50c each. 42½c dealers.

September is the best month to requeen. Try our BETTER BRED stock and watch your increased yield next spring. If you wish dealers' prices, order direct from this ad.

CALVERT APIARIES :: CALVERT, ALABAMA

Save Time! Save Worry!

DADANT'S CRIMP-WIRED FOUNDATION

Can be nailed into Lewis Slotted Bottombar Frames in a jiffy. And such wonderful combs you'll be proud of 'em!

Sold by Dealers in Lewis Beeware and Dadant Foundation.

"Factors Influencing Honey in Storage;" Chas. Kruse, Paris, Illinois, "Queen Rearing for Honey Production," the demonstrations just mentioned, a basket lunch with a Wabash Cat-fish Fry and concert, five-minute talks by speakers in attendance. Dr. Ben Smith, Indiana State Teachers' College, "Factors Influencing Nectar Secretion;" Malitta F. Jensen, American Honey Institute, "Uses of Honey in the Home." The contest and a round table talk on "How I Winter" led by Scott, and Hilbert, and Duax, and Cale, and Peterson of Illinois.

If you have any ideas on equipment or anything to exhibit, bring them along and they will be given a place. The music furnished will be by the Newport High School band, a well trained organization of 38 pieces. Newport is in central Indiana on the Illinois line, 24 miles south of Danville, 30 miles north of Terre Haute on Indiana State Road 63.

— o —

Good Report of Western New York Meeting

The Western New York Honey Producers Association held their annual summer picnic at Mrs. Chas. Humphrey's at Warsaw, with President John Leonard of Scottsville presiding. There were over 200 present.

An interesting feature of the meeting was a demonstration of the removal of honey with carbolic acid by John De Muth of Pembroke. Mrs. Humphrey gave a good address, explaining the disadvantages of a lady beekeeper working in the sun on a hot day, handling heavy supers and trying to raise a heavy ladder for a swarm. She reported an ointment made of beeswax and butter very effective on a stubborn sore.

Mr. Everett Clark, County Farm Bureau Agent, in Wyoming County, told of the pasture improvement program which is helping the beekeeper by sowing of sweet clover for pasture in dry years.

Mr. Howard Myers of Ransomville reported a fine demand for bees for pollination this spring in spite of the bad season last year for the fruit grower. He also quoted honey price offers considerably above last year's, as there is a very short crop in the United States.

Mr. Otto Hurd of northwestern Ohio reported honey plants fair in his section, but that a large crop was not expected. Mr. Emil Gutekunst of Colden, New York, donated twelve queens and Mr. Howard Myers auctioned them off, the proceeds of $30.25 being sent to American Honey Institute.

Mr. Everett Clark announced there would be another meeting of the Tri-County Association September 2 at Mrs. Humphrey's, with Prof. Rae of Ithaca demonstrating winter packing.

ADVERTISING PAGES REMOVED

PURE ITALIAN QUEENS—Stock Imported from Northern Italy.

Pure Italian queens, bred from mothers imported from northern Italy. All leather colored. You'll like them. They are different. Price 50c each, any number.

MIDDLE TENNESSEE APIARIES
Joe B. Tate & Son
1029 Lischey Ave., Nashville, Tennessee.

Bassett's Italian Queens and Package Bees

Prices June 1st to Nov. 1st:

Untested ---------- **$ .50 ea.**
Tested ---------- **1.00 ea.**

IXL APIARIES
C. Bassett, Prop. Sutter, California
Phone or telegraph 91-Y-21
Member California Bee Breeders' Association

JENSEN'S

QUEENS at the head of your colonies will be a big step forward in their preparation for successful wintering, and building up next spring. During the fall honeyflow is an ideal time for requeening, or even after all brood has hatched queens are easily introduced.

No queens, anywhere, are subjected to as severe duty as those in package colonies, and our breeders are selected from those going strong in their second and even third year. Many colonies that gave ten and twelve pounds of bees during the package season, have built up and are yielding fifty to seventy-five pounds surplus honey. Just ordinary strains of bees would not have done this well. There must be a reason.

Try requeening at least half your colonies with our queens this fall and watch results next spring; you have a happy surprise in store. With our requeening nearing completion, we have just a few more Select Tested Queens which we are offering two FREE on the basis of $1.00 for membership in the American Honey Institute. Many have taken advantage of this proposition.

SELECT UNTESTED QUEENS TO NOVEMBER 1st
50c each.

JENSEN'S APIARIES
MACON, MISSISSIPPI
Home of "Magnolia State" Strain Pure Three-Banded Italians.

For Over 50 Years

BEEKEEPERS in many lands have been pleased with this most important tool in Beekeeping. Your Bingham Smoker is offered for sale by numerous dealers.

INSIST ON THE BEST
Manufacturers of a complete line of Honey Extractors, one for every requirement. Send for printed matter.

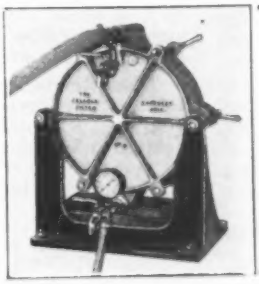
A. G. WOODMAN CO.
GRAND RAPIDS, MICH.

HONEY WANTED

Carloads or Less Carloads :: Comb and Extracted

Send us 8-oz. or larger sample when ready to ship stating how cased, quantity can ship and when, and name lowest price will accept.

HONEY PACKERS, Inc.
230 Park Avenue New York, N. Y.



HONEY FILTERING!

Special equipment for filtering honey. Amazing results in brilliantly clear, stable honey, with high sales appeal. Simple process. Profitable investment. Filter, mixing tank, flash heater, complete outfit—investigate! Write us—no obligation.

THE CELLULO COMPANY
1321 FIRST STREET SANDUSKY, OHIO.

THRIFTY
3-BANDED ITALIAN QUEENS
50c each
15% Discount to Dealers

Young vigorous queens will help you repair your colonies for winter and bring them out in the spring ready for the early flow of nectar. Replace your old or inferior queens now and reduce winter loss and spring dwindling.

Forty-three years' experience assures you of the best stock.

W. J. FOREHAND & SONS
FORT DEPOSIT, ALABAMA
Breeders Since 1892

QUEENS

Good Yellow Italians—The kind that produce bees that are gentle, hardy, and great honey gatherers.

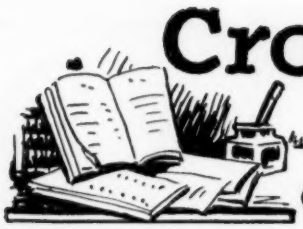
UNTESTED ---------- 50c each
TESTED ---------- $1.00 each

W. O. GIBBS CO., Brookfield, Ga.

For honey's sake, join your nearest Association of Beekeepers.

Renew your subscription today! You don't want to miss an issue.

Mention American Bee Journal when writing advertisers.



Crop and Market Report

COMPILED BY M.G.DADANT

For our September crop and market page, we asked reporters to answer the following questions:

1. How big is the total crop compared to 1935?
2. What prospects for the fall?
3. How is honey selling locally?
4. How is jobbing demand?
5. Are buyers offering lower or higher than last year and how much is the difference?
6. Please look over the attached schedule of prices that appeared in August A-B-J and suggest changes.

Crop Compared to 1935

On the opposite page, our readers will find a concise report on the crop compared to 1935, the prospects for the balance of the season, as well as revised recommended prices.

These are, of course, to be taken as approximations inasmuch as many states report different conditions in different parts. For instance, southern New York has had a very short crop whereas northern New York has fared very well. In Michigan the opposite is true, southern Michigan having practically a normal crop whereas northern Michigan has had only about 50 per cent.

Wyoming is shown below normal, but in the northern sections and the adjacent parts of Montana there has been almost a bumper crop.

Colorado on the eastern slope is not good but southern sections are about normal and the western slope has been probably above normal.

The same holds true in California where south and central California has had a very short crop whereas as you work farther north, the crop gets better and is normal from central California north.

All of these things must be taken into consideration.

Please bear in mind that the crop compared to 1935 means percentage per colony. This if translated into the total crop for the year would, therefore, cut down the percentages of practically every state, particularly in the windblown northern sections because of the fact that so many less colonies came through the winter than last year. Some winter losses were estimated as high as 60 per cent and practically all reporters writing in from those northern sections state that their overwintered colonies fared wonderfully whereas the package bees and increase did not do so well on account of the last cutting off of the flow by the dry hot weather.

Prospects Ahead

Our readers will notice that the prospects are not very favorable except in the southern Appalachian section and some parts of the sweet clover areas.

The dry hot weather has extended practically over the entire country except the South.

It is remarkable, however, what the bees will do under adverse conditions and many beekeepers have reported abnormal crops this year in the face of the heat and drought, their thanks being in the first place to sweet clover which was slow to dry up and in the second place to a fairly good crop from alfalfa which yields well during arid seasons.

This has made for good prospects in many sections for the latter half of the year as it has in the alfalfa sections of the West.

The ordinary amber fall flows, however, are going to be extremely short, indeed, unless rains have fallen after the date of this writing (August 18).

All in all it does certainly seem that the crop is going to be short although many beekeepers are going to be "in the clover" because of almost bumper yields.

Honey Selling

Honey is selling we believe remarkably well for the season, largely due to the fact that old stocks were well used up and also to the fact that there is scarcely any fruit anywhere and the housewife is being pushed to honey as a sweet for the table. The impetus of the American Honey Institute work also is being shown by the increasing and ever increasing demand on the part of bakers and manufacturers for honey.

Jobbing Demand

The jobbing demand, while hesitant in the sections where the crop has not yet been harvested, has really been stepping forward. In California and western states particularly, the demand has quickened appreciably when the buyers found that there was very little distressed honey and no low priced honey to be had. At the time this was written, there is probably an indecisive attitude on the part of many buyers on account of the possibility yet of an additional flow from sweet clover and alfalfa. However, the jobbing demand has quickened, the prices have likewise stiffened as our readers will notice by comparing the table on the opposite sheet with that of a month ago.

Buyers' Prices

Buyers' prices almost universally range from ½ cent to 1½ cents above the same time last year. There just simply isn't the honey this year and buyers are bidding for it and the producer is getting the benefit.

There is no doubt in the mind of the writer that the total honey crop this year is going to be short of last year, not so much due to the fact of the hot weather and drought as to the heavy loss of last year and the inability to get the newly formed colonies into condition to take advantage of the early flows before the hot, dry weather came.

There have been very few seasons where conditions were so spotted and very few seasons where beekeepers have been awed so much as they were this year by a good crop of honey when they expected nothing owing to the drought. Yet these conditions are so spotted that they will not affect the total crop of honey a great deal.

We have heard of some yields as high as 300 pounds per colony but on the average, the colony yields are not going to be equal to last year and not nearly up to normal.

What promised to be an extremely heavy season in May has turned out to be a rather mediocre spotted season in August. And in the Central West, the drought still continues at this date.

Please examine the opposite page for further reports and the writer would appreciate any suggestions or recommendations.

Renew Your Subscription
Write for Our Special Club Offers
AMERICAN BEE JOURNAL

Iverson Honey Company (Not Inc.)
Successor to
Edwin H. Guertin, 201 N. Wells St., Chicago
Extracted Honey bought and sold
Reference: First National Bank of Chicago.

Are You Ready for This Season?
Have you gone over your equipment? Have you plenty supplies? Advertisers in the American Bee Journal will welcome any inquiry sent to them.

	Crop Compared to 1935	Prospects Balance Season	Honey Selling	Buyers?	Offers	SUGGESTED PRICES — F.O.B. SHIPPING POINT											
						C/L White Extracted	C/L Amber Extracted	C/L No. 1 Comb	10-lb. Retail Extracted	5-lb. Retail Extracted	10-lb. Bulk Comb	5-lb. Bulk Comb	1-lb. Jar Retail	Comb Section Retail	Comb - Case to Grocer	Discount to Grocer	Discount to Jobber
NEW ENGLAND	90%	70%	Good	---	------	------	------	----	$1.60	$ .90	----	----	$ .30	$ .30	$4-5.00	25%	35%
NEW YORK	75%	40%	Fair	---	------	.08	.07	$3.50	1.50	.90	----	----	.25	.25	4-5.00	25%	35%
NEW JERSEY, DELAWARE, MARYLAND	110%	50%	Good	---	------	------	------	----	1.50	.85	----	----	.25	.25	3.75	20%	30%
WEST VIRGINIA, VIRGINIA	110%	80%	Fine	---	.07	------	------	----	1.40	.75	$1.50	$ .80	.25	.25	4.00	20%	30%
NORTH CAROLINA, SOUTH CAROLINA	130%	100%	Fine	---	------	------	------	----	1.30	.70	1.40	.75	----	----	----	----	----
GEORGIA	120%	100%	Good	---	.06	.07	.05½	----	1.25	.65	1.45	.75	.25	----	----	20%	25%
FLORIDA	130%	100%	Good	---	.06	.06½-.07	.06-.06½	----	1.20	.65	----	----	.25	----	----	20%	30%
ALABAMA, MISSISSIPPI	100%	100%	Good	---	------	.07	.06-.07	----	1.25	.65	----	----	.20	----	----	20%	25%
KENTUCKY, TENNESSEE	40%	20%	Fair	---	------	------	------	----	1.45	.65	1.50	.80	.20	.25	4.80	20%	25%
ARKANSAS, LOUISIANA	70%	60%	Slow	---	.06	------	.05	----	1.20	.60	1.50	.80	.20	----	----	20%	30%
TEXAS	100%	100%	Fair	---	------	.06-.06½	.05	----	1.20	.65	1.20	.65	.25	----	----	20%	30%
NEW MEXICO, ARIZONA	75%	60%	Fair	---	.05½	.06-.06¼	------	----	1.00	.50	----	----	----	----	----	----	----
PENNSYLVANIA, OHIO	Pa.60% O.90%	40%	Fair	---	------	.07-.07¼	------	----	1.35	.75	----	----	.20	.25	4.50	20%	30%
MICHIGAN	N50% S80%	50%	Good	Yes	.06½	.07-.07½	.06-.07	----	1.25	.65	----	----	.20	.20	3.75	20%	30%
WISCONSIN	70%	50%	Good	Yes	.06	.07	.06-.07	----	1.20	.60	----	----	.20	.20	3.75	20%	30%
MINNESOTA	85%	60%	Good	Yes	.06-.06½	.06½-.07	.06	----	1.15	.65	----	----	.20	.15	3.40	20%	30%
INDIANA	80%	30%	Fair	Yes	.06½	.07	.06	----	1.25	.70	----	----	.25	.25	3.75	20%	30%
ILLINOIS, IOWA, MISSOURI	75%	30%	Fair	Yes	.06	.07	.06¼	----	1.25	.65	----	----	.20	.20	3.25	20%	30%
NORTH DAKOTA, SOUTH DAKOTA	60%	40%	Good	Yes	.06-.06½	.07	------	3.25	1.25	.65	----	----	.20	.20	3.50	20%	30%
NEBRASKA	60%	25%	Good	---	.06	.07	------	----	1.25	.65	----	----	.25	.20	3.50	20%	30%
KANSAS, OKLAHOMA	50%	30%	Slow	---	------	.07	------	----	1.30	.70	----	----	.25	.20	3.60	20%	32%
MONTANA, WYOMING, COLORADO	80%	80%	Fair	---	.06¼	06¼-06½	.06	----	1.15	.60	----	----	.15	.15	3.25	20%	30%
IDAHO	150%	100%	Slow	Yes	.06	.06-.06½	.06	3.25	1.00	.50	----	----	.20	.17	3.25	20%	27%
UTAH, NEVADA	120%	100%	Good	Yes	.06	.06-.06¼	.05¾	3.00	1.00	.55	----	----	.20	.18	3.10	20%	26%
WASHINGTON, OREGON	120%	100%	Good	---	.07	.07	------	3.25	1.10	.60	----	----	.20	.20	3.25	15%	25%
CALIFORNIA	50%	50%	Fine	Yes	.06-.06¼	.06-.07	.06	3.00	1.00	.55	----	----	.20	.20	3.25	15%	25%
BRITISH COLUMBIA	80%	50%	Good	Yes	------	.10	------	----	1.50	.85	----	----	.25	----	----	----	---
ONTARIO	80%	80%	Good	---	------	.08	------	----	1.00	.55	----	----	----	----	----	----	----
SASKATCHEWAN, MANITOBA, ALBERTA	90%	100%	Good	---	------	.09	------	----	1.00	.55	----	----	----	----	----	----	----

The BEEKEEPER'S EXCHANGE

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department, it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers, we require references of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspector. Conditions should be stated to insure that buyer is fully informed.

BEES AND QUEENS

JOYFUL QUEENS — Leather colored Italians. Good honey gatherers and gentle. 50c each.
Joy Apiaries, Walter Frierdich, Belleville, Ill.

ITALIAN Queens. Northern bred, for Northern conditions.
Eugene Gordon, Hershey, Nebraska.

CAUCASIAN BEES AND QUEENS for June. Write for free booklet which describes our bees and quotes prices.
Bolling Bee Co., Bolling, Alabama.

EXTRA YELLOW Italian Queens that produce bees a little more yellow than the three-banded; more gentle and just as good workers. Untested 50c each; tested $1.00. Health certificate and satisfaction. Hazel V. Bonkemeyer, Rt. 2, Randleman, N. C.

GET RUNNING'S QUEENS and Get Honey —They Satisfy. The kind we use in our extensive Michigan Apiaries where we produce honey by the carload. Accredited and certified ITALIAN stock, bred for gentleness and honey getting. Price any number, 50 cents each. QUICK SERVICE.
David Running, Sumterville, Alabama.

"SHE-SUITS-ME" QUEENS. See page 155 of March number. Send for circular.
Allen Latham. Norwichtown, Conn.

STOP—LOOK—Genuine Three-Banded Italian Queens 50c each. Satisfaction guaranteed. Alamance Bee Company, Geo. Elmo Curtis, Mgr., Graham, North Carolina.

LIGHT 3-BANDED ITALIAN QUEENS. We are one of the largest growers of queens in the United States, producing 100 queens or more daily. We ship only young, laying queens, and guarantee them to be purely mated, and satisfactory to you. You are the judge. Price 50c each, to dealers 42½c each. We need dealers in many localities.
The Walter T. Kelley Co., Paducah, Ky.

A NEW SERVICE FOR BEEKEEPERS. Three-Banded Italians, mailed in our special introducing cage. Guaranteed to safely introduce to normal queenless colonies, or replacement free if our directions are followed. One to five, 55c each. Five or more, 50c each.
Silver Run Apiaries, Phenix City, Ala.

PERSONALLY REARED Northern Italian Queens. Try one or a dozen and be convinced of their superiority. Each 50c.
N. J. Smith, Coopersville, Michigan.

ANNOUNCEMENT—Have gone in business for myself after many years' experience with others. My aim is not how much I can get for what I give, but how much I can give for what I get. For the remainder of the season, pure Italian golden queens 50c; tested $1.00. Packages in season.
Head Apiaries, S. J. Head, Prop., Bay, La.

GOLDEN ITALIAN QUEENS that produce workers very gentle to handle. Good honey gatherers. Health certificate. Satisfaction guaranteed. Select tested, $1.50; tested, $1.00; untested, 50c.
D. T. Gaster, Rt. 2, Randleman, N. C.

CAUCASIAN BEES will increase your honey production and winter better. Queens 50c each.
P. B. Skinner Bee Co., Greenville, Ala.

GOLDEN QUEENS, gentle, untested 50c, tested $1.50. Prompt shipment. Satisfaction guaranteed.
H. G. Karns, Green Bay, Virginia.

REQUEEN NOW. I have a fine lot of 3-band Italian queens reared during a honeyflow; you can't buy better ones. Fifty cents each.
N. S. Gladish, 5 Hobbs Rd., Nashville, Tenn.

HONEY FOR SALE

FOR SALE—Northern white extracted and comb honey.
M. W. Cousineau, Moorhead, Minn.

CHOICE Michigan Clover Honey. New 60's.
David Running, Filion, Michigan.

HONEY FOR SALE—Any kind, any quantity. The John G. Paton Company, 230 Park Avenue, New York.

FOR SALE—Well ripened clover honey, car lot or local shipments. Will be pleased to submit sample. THE COLORADO HONEY PRODUCERS' ASSN., 1324 Market St., Denver, Colorado.

FOR SALE—Fine grade light amber bulk comb honey.
Hyde Bros., New Canton, Ill.

HONEY PACKERS—Write us for prices and samples on California and Western Honeys. We stock all varieties. HAMILTON & COMPANY, 108 West Sixth Street, Los Angeles, California.

FOR SALE—Extracted honey in new 60's. H. Blitz, P.O. Box 3438, Philadelphia, Pennsylvania.

TUPELO HONEY—Will not granulate. Barrells, new 60's, seven and eight cents.
Anthony Bros. Honey Co., Apalachicola, Fla.

NEW CROP WHITE CLOVER HONEY.
Henry Stewart, Prophetstown, Ill.

NOW SHIPPING the finest of white clover in new 60's, 8c. No. 1 comb per case $3.50.
F. J. Smith, Castalia, Ohio.

FOR SALE—New Comb and Extracted Honey. H. G. Quirin, Bellevue, Ohio.

NEW CLOVER HONEY for sale. Write for prices. Henry Price, Elizabeth, Illinois.

FOR SALE — Finest quality and whitest comb honey in years. Also white extracted. N. B. Querin & Son, Bellevue, Ohio.

HONEY FOR SALE—All kinds, any quantity. H. & S. Honey & Wax Company, Inc., 265-267 Greenwich Street, New York.

FINE QUALITY white clover extracted 8c. Sample 15c. A. J. Wilson, Hammond, N. Y.

WHITE CLOVER HONEY in 60-lb. cans at 8c lb. Write for prices on large quantities. Sample 15c.
F. W. Summerfield, Grand Rapids, Ohio.

NEW CROP white extracted, case or ton lots. Sample ten cents.
Harry C. Kirk, Armstrong, Iowa.

NEVADA alfalfa sweet clover honey, car lots, white 6c, E.L.A. 5¾c f.o.b. Fallon, in new cans and cases.
C. E. Andrews, Box 334, Fallon, Nevada.

FINEST QUALITY white clover extracted honey, $8.40 per case 120 lbs. net, new cans. Sample 10c.
W. J. Manley, Sandusky, Mich.

EXTRACTED CLOVER HONEY in 60-pound cans. New crop, new cans and cases. Can to Tons. Sample free.
W. S. Earls & Son, New Canton, Illinois.

HOWDY'S HONEY—Fancy comb by carrier lots and white clover extracted in new sixties, carlot or less. Howard Potter, Ithaca, Michigan. Personal — Converse Laboratory, Cambridge, Massachusetts.

SEVERAL TONS fine extracted clover honey. No reasonable offer refused.
Andrew Mahay, Johnstown, N. Y.

WHITE CLOVER comb and extracted honey.
Earl Baker, Genoa, Illinois.

CHOICE WHITE CLOVER HONEY in 60-lb. cans. J. F. Moore, Tiffin, Ohio.

FANCY NEW CROP white clover extracted honey. Kalona Honey Co., Kalona, Iowa.

HONEY AND BEESWAX WANTED

WANTED—Extracted Honey. Send sample and price delivered to T. W. Burleson & Son, Waxahachie, Texas.

WANTED—Car lots honey; also beeswax, any quantity. Mail samples, state quantity and price. Bryant & Cookinham, Inc., Los Angeles, Calif.

WANTED—White and Light Amber Honey. Carlots or less. Clover Blossom Honey Co., 712 Kossuth St., Columbus, Ohio.

WANTED—White and light amber extracted honey. Also comb. Prairie View Apiaries, 2005 Fullerton, Detroit, Mich.

WANTED—Comb and extracted honey.
Schultz Honey Co., Ripon, Wisconsin.

CASH PAID FOR COMB AND EXTRACTED HONEY. Mail samples and best price.
C. W. Aeppler Company, Oconomowoc, Wis.

CASH—For extracted white and light amber honey. Mail samples, state price. Walter Geiger, 325 West Vine Street, Milwaukee, Wisconsin.

WAX worked into comb foundation, accepted in trade for supplies or bought. Write for our proposition and shipping tags.
Walter T. Kelley Co., Paducah, Kentucky.

FOR SALE

FOR SALE—700 colonies bees, in two-story 10-frame hives, Hoffman frames, good condition. Odie Wedgworth, Florence, Ariz.

USED ONCE 60-LB. CANS. Two in a wooden case. Write for prices.
C. W. Aeppler Company, Oconomowoc, Wis.

140 COLONIES BEES, two-story 10-frame painted hives, fully equipped.
Theodore Sires, Yakima, Washington.

260 DOUBLE 8-FRAME COLONIES, good shape, excellent alfalfa and sweet clover location. Equipment for producing extracted honey. Guaranteed no disease. Cash only.
Mrs. Katherine Whitacre, Saratoga, Wyo.

GOOD BEEKEEPER'S HOME with enough acreage for dairy, poultry or light farming. Good set of buildings, artesian well, delightful climate. Good roads and good bee territory. Priced right for quick sale.
Write N. C. Jensen, Macon, Mississippi.

CLOSING OUT Modified Dadant Hives and equipment at one-fourth off catalog prices. Stock complete, including 250 lbs. 10-11/16x16⅜ and 150 lbs. 5-11/16x16¾ Crimp-Wired medium brood foundation and 300 lbs. 4½x16½ Thin super. Smith's Bee Supply, Box 603, Billings, Montana.

25 CARTONS for 60-lb. cans $2.50. 100—2½-lb. cans $3.85. 50—5-lb. pails $3.25. 50—10-lb. pails $4.75. 16-oz. Modernistic jars, 24—85c, 144—$4.80, 432—$13.50, 720—$21.00. Write for special price on what you want. Rettig Supply Co., Wabash, Ind.

COMB HONEY CARTONS 4x5 and 4¼x1½ two color, close out price $2 per thousand F.O.B. Watertown. Shipping weight 7 pounds per 100. Order from G. B. Lewis Company, Watertown, Wisconsin.

HIGH WINDS COMING — BEE prepared. Equip your hives with Whitehouse Bee-Tight Hive Cover Holder. Speed up bee work—eliminate rocks. Outer cover cannot blow off, and it fits down tightly against inner cover which operates as easily with attachment as without—only ½ minute to install this device—nothing more to do. Whitehouse Bee-Tight Hive Cover Holder puzzles meddlers and fits metal top covers only. Try one and be convinced that you need this attachment on all of your hives. Sent prepaid upon receipt of price of 15c each—one dozen for $1.50. Patent applied for and manufactured by R. S. Whitehouse, 275 LaGrange St., West Roxbury, Mass., U. S. A.

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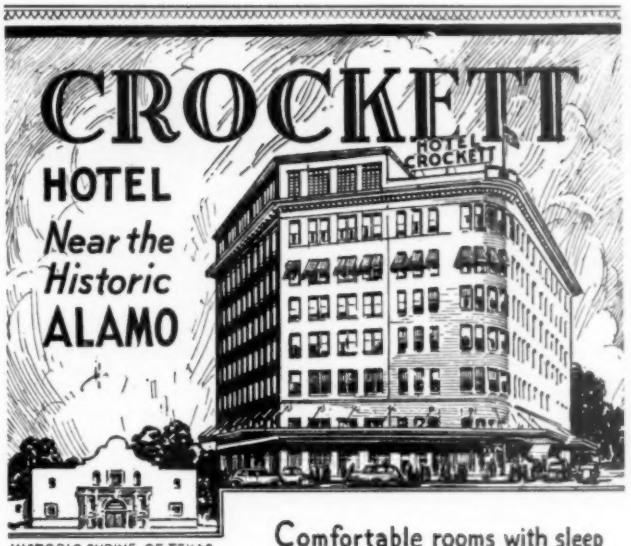

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Untested Queens . . . . . *50c each*

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ADVERTISING PAGES REMOVED

The Postscript

GOSSIP ABOUT THE OFFICE IN THE MAKING OF THE MAGAZINE

A reader of this page has been responsible for putting me in touch with Rex D. Pearce, of Merchantville, New Jersey, who issues an interesting catalog of seeds of rare plants. There I find the seed of the button-bush offered under its scientific name of Cephalanthus occidentalis for only five cents a packet or 20 cents for one-fourth ounce. Readers who have asked for this seed take note.

This catalog offers an unusual variety of seeds of flowering plants not commonly available and any reader who is interested in that kind of material will find it worth while to send for a copy.

—ABJ—

The drought of recent years has been very discouraging to the gardener who lacks water for irrigation. I think that I am safe in saying that literally millions of wild flowers have disappeared from my preserve. I am hoping that enough seeds and dormant roots remain in the soil to reproduce most varieties in quantity when normal rainfall comes again. When it comes to establishing things that are new under such dry conditions it is rather hopeless.

—ABJ—

Dick Windish, of White Pigeon, Michigan, is located where button-bush is abundant. Since it blooms with basswood he reports that he is unable to determine how much honey his bees get from it. Should anyone want to secure a quantity of the seed it is probable that arrangements could be made to have Mr. Windish gather it.

—ABJ—

Dr. Waldo Horton, of Winter Haven, Florida, suggests that mankind would solve the problems generated by the modern war spirit if they would do what mother nature has done for the bee—place all weapons of defense in the hands of the females and strip males of all such equipment.

Most folks, however, assume that the females among the bees are able to use their armament quite effectively.

—ABJ—

The May issue of the Bee World mentions salvia nemorosa as a shrub which will stand German winters and which blooms from the end of June until the end of August. Specimens of this plant have bloomed with us for the first time this summer. They had finished blooming by the end of July but the time was perhaps cut short by the very severe drought. It looks like a promising addition to the list of honey plants which are attractive in the garden.

—ABJ—

The Bee World states that the plant was introduced into Britain from Germany in 1759 so it is no newcomer there. As far as I can learn it is not commonly known in mid-western gardens and I have not seen it elsewhere. Our seed was secured in England.

—ABJ—

Among the numerous letters about button-bush which have come to me is one from M. N. Dietrich of Newton Falls, Ohio, who reports much of it growing in the lowlands near him. His bees work it as hard as they do clover and he has seen as many as five bees on one "button." He reports a nice amber honey similar to goldenrod or heartease as gathered from this plant.

—ABJ—

Button-bush grows in wet places where the land overflows or where water stands much of the time. The flowers are white ball-like clusters which resemble small pin cushions. The bush grows to a height of six feet or more and is spreading in habit where there is ample room. On the Pacific coast it is said to grow much larger and sometimes to attain the height of a fair sized tree.

—ABJ—

L. A. Schott, of Benton, Missouri, reports button-bush along hundreds of miles of drainage ditches in southeast Missouri. He tells of a nice crop of honey from this source secured by a Mr. Headlee, of Morehouse, which was of very fine quality. Schott says that he has noticed the bees working on button-bush each year since that time. A pleasant aroma pervades the apiary at nightfall when the bees are working button-bush.

—ABJ—

Mr. Schott adds an interesting note about sweet clover which seemed to die during the severe drought. Since rains came new shoots have appeared on the apparently dead stalks and the bees are working sweet clover again. Had it not been for sweet clover I fear but little surplus honey would go to market from the Mid-West this year.

—ABJ—

Mr. Dietrich comments on the value of the minor honey plants and says that such plants as melons keep the bees busy between flows and because of them "a big colony in a Dadant hive is sure in shape to go to town when they find something that does yield a surplus."

The minor honey sources are of far greater importance than is generally realized since they largely determine the condition of the colonies when surplus flows begin.

—ABJ—

A letter from Secretary Paddock indicates that a special effort will be made to get all those who were present at the first meeting of the Iowa Beekeepers' Association to return this fall for the 25th annual session. A sort of home coming will be arranged and all who attended early conventions will be urged to meet the old-timers again at this year's meeting. Such meetings hold special interest.

—ABJ—

Anyone wishing a full report of the cooperative experiment in disease resistance can get it in the report of Iowa State Apiarist for 1935 which can be had free by writing to Prof. F. B. Paddock, at Ames, Iowa.

—ABJ—

The Pope is quoted as having stated in a recent address that some sixty years ago he was a beekeeper. His comments did not deal with the financial profits but he said: "I drew from it an incontestable spiritual profit."

Most beemen of my acquaintance seem to find something of this spiritual profit which no one can define fully but which provides the great attraction of beekeeping as an occupation.

—ABJ—

In the May issue of Scottish Beekeeper the editor says: "After 21 years devoted to beekeeping instruction I regard brood disease as perhaps the least important handicap which the beekeeper has to face. Perusal of reports of touring experts of the Aberdeen district indicates that brood disease is of small importance to an association with over 1500 members. The same is apparently true in England."

Why then is disease the all important topic with American beemen? The answer is apparently that we have propagated susceptible strains of bees on a very large scale until they have become the dominant type in general use.

FRANK C. PELLETT.